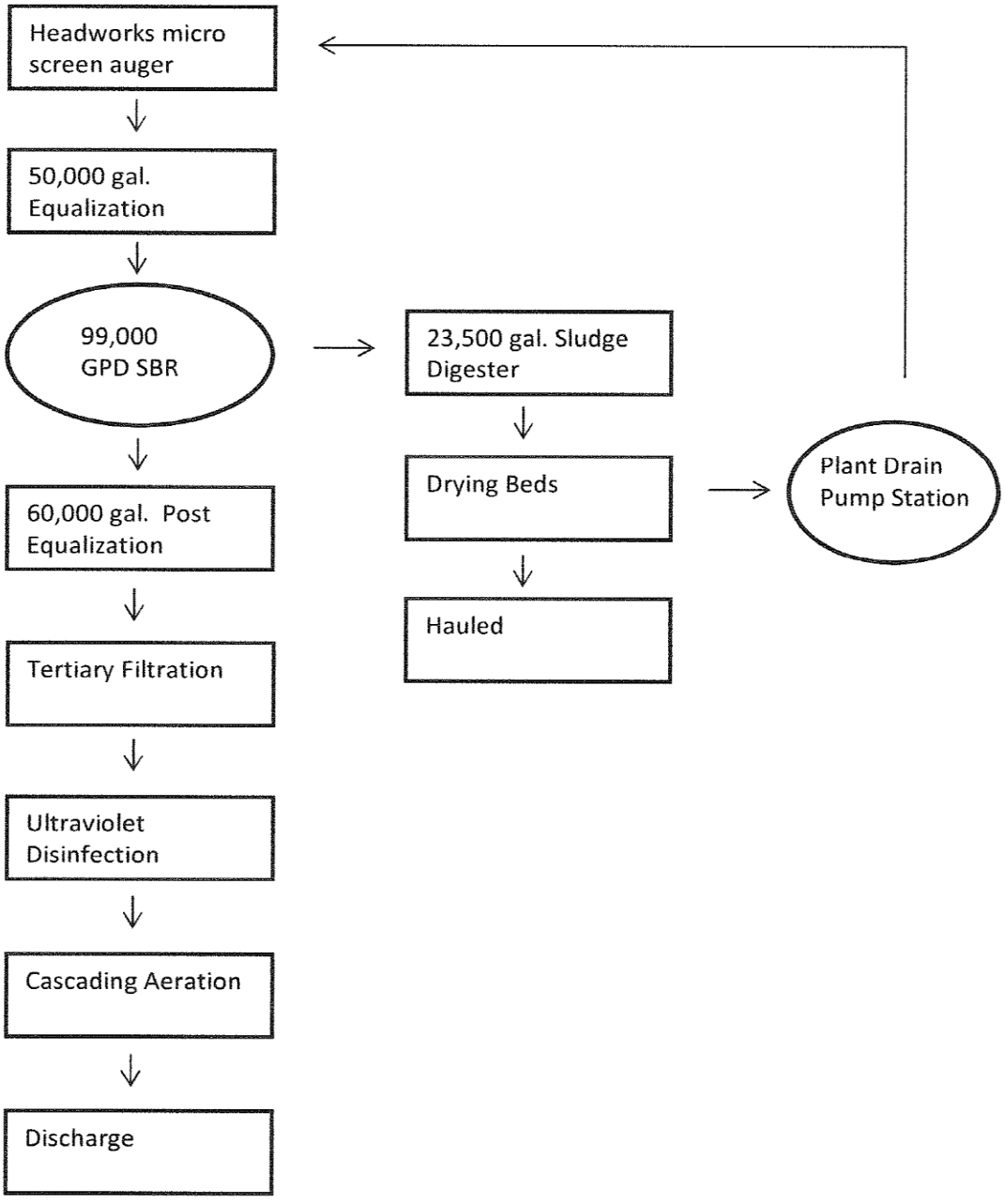
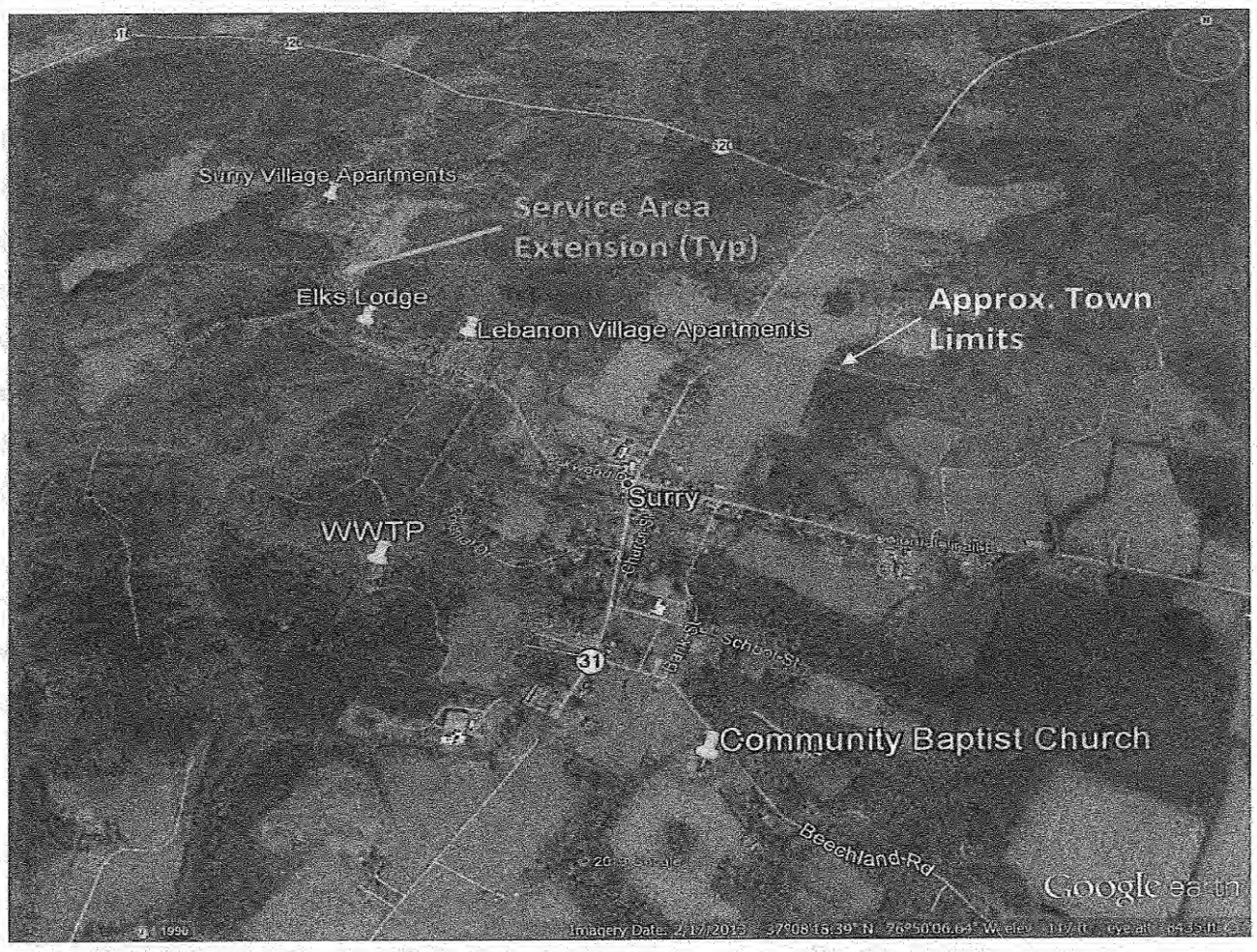
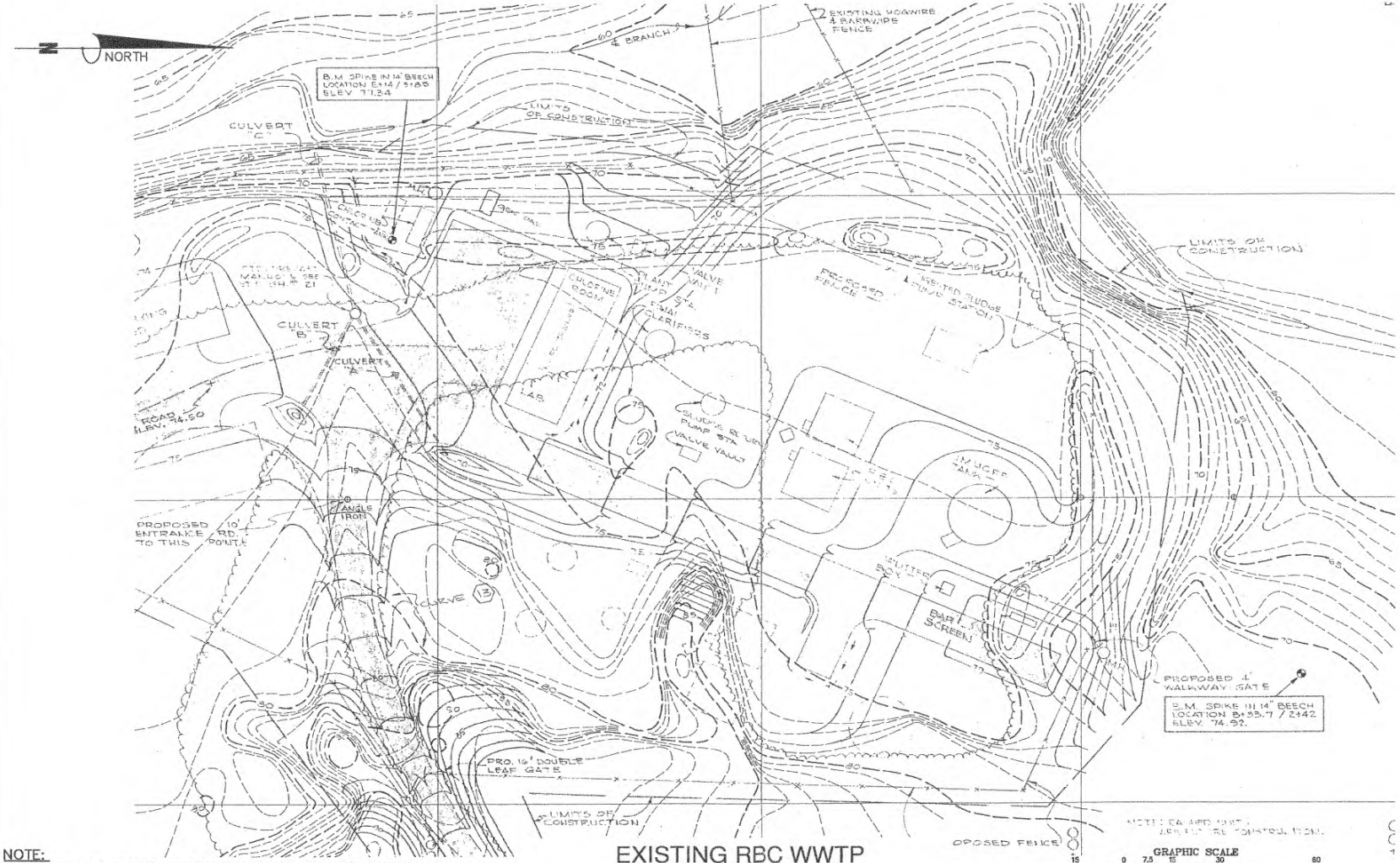
Attachment 1:
Proposed Facility Modifications (Expansion to 0.099 MGD) and Nutrient Offset Plan (submitted by permittee)

Proposed WWTP Line Diagram





TOWN OF SURRY WWTP SURRY COUNTY, VIRGINIA **FIGURE IV-1: PROJECT PLANNING AREA**	BOWMAN CONSULTING GROUP, LTD. 460 MCLAWS CIRCLE, SUITE 120 WILLIAMSBURG, VIRGINIA 23185 PHONE: (757) 229-1776 FAX: (757) 229-4683



EXISTING RBC WWTP

SCALE: 1"=30'

NOTE:
BACKGROUND SITE PLAN IMAGE PROVIDED BY THE TOWN OF SURRY FROM PLANS BY R. STUART ROYER & ASSOCIATES ENTITLED "TOWN OF SURRY, VIRGINIA SEWERAGE IMPROVEMENTS" DATED OCTOBER, 1979, REVISED FEB. 5, 1981, AND MAY NOT MATCH EXISTING SITE CONDITIONS.

Bowman CONSULTING

Bowman Consulting Group, Ltd.
400 Mill Lane Circle
Suite 1
Williamsburg, Virginia 23185
Phone: (757) 229-1776
Fax: (757) 229-4553
www.bowmanconsulting.com

EXISTING RBC WWTP
TOWN OF SURRY WWTP UPGRADES
PRELIMINARY ENGINEERING REPORT

JMK	DWD	JMK
DESIGN	DRAWN	CHKD

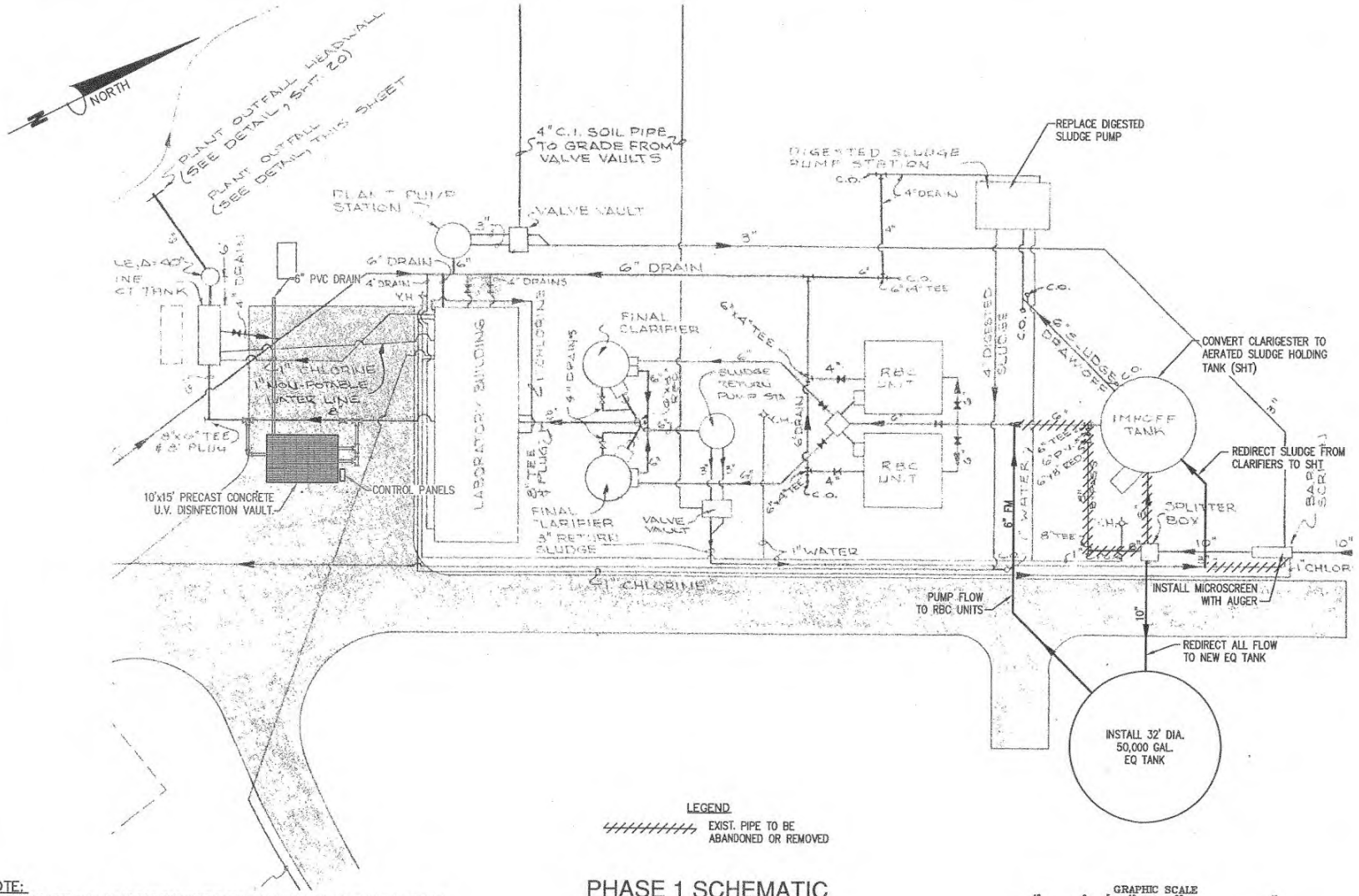
SCALE: H: 1"=30'
V:

JOB No. 8142-01-002

DATE : SEPT. 2013

FILE No. 8142-B-PER

SHEET 1 OF 3



NOTE:
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PHASE 1 SCHEMATIC

SCALE: 1"=20'

Bowman Consulting Group, Ltd.
460 McLaws Circle
Suite 103
Williamsburg, Virginia 23185
Phone: (757) 229-1775
Fax: (757) 220-4583
www.bowmanconsulting.com

PHASE 1 SCHEMATIC
TOWN OF SURRY WWTP UPGRADES
PRELIMINARY ENGINEERING REPORT

JMK	DWD	JMK
DESIGN	DRAWN	CHKD

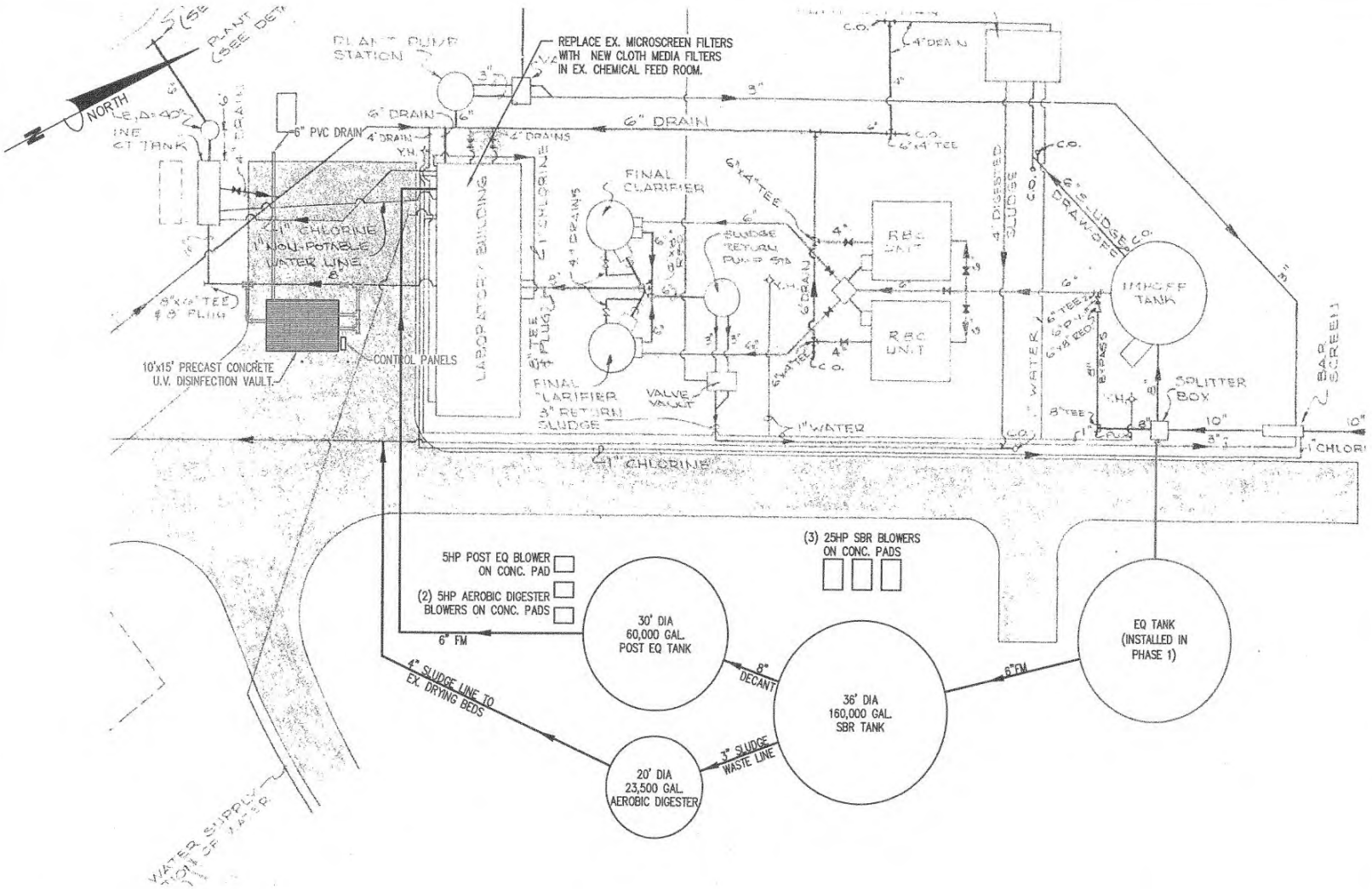
SCALE: H: 1"=20'
V:

JOB No. 8142-01-002

DATE : SEPT. 2013

FILE No. 6142-B-PER

SHEET 2 OF 3



NOTE:
BACKGROUND SITE PLAN IMAGE PROVIDED BY THE TOWN OF SURRY FROM PLANS BY R. STUART ROYER & ASSOCIATES ENTITLED "TOWN OF SURRY, VIRGINIA SEWERAGE IMPROVEMENTS" DATED OCTOBER, 1979, REVISED FEB. 5, 1981, AND MAY NOT MATCH EXISTING SITE CONDITIONS.

PHASE 2 SCHEMATIC

SCALE: 1"=20'

GRAPHIC SCALE
10 0 5 10 20 40
(IN FEET)
1 inch = 20 ft.

Bowman CONSULTING

Bowman Consulting Group, Ltd.
225 McLaws Circle
Suite 120
Williamsburg, Virginia 23185
Phone: (757) 229-1776
Fax: (757) 229-4682
www.bowmanconsulting.com

PHASE 2, ALTERNATE 1 SCHEMATIC
TOWN OF SURRY WWTP UPGRADES
PRELIMINARY ENGINEERING REPORT

JMK	DWD	JMK
DESIGN	DRAWN	CHKD
SCALE	H: 1"=20' V:	
JOB No.	8142-01-002	
DATE :	SEPT. 2013	
FILE No.	8142-B-PER	
SHEET	3 OF 3	

Plan to Offset Nitrogen and Phosphorus

With the addition of the new treatment system, the capacity of the treatment system will increase from 60,000 gpd to 99,000 gpd. The treatment system will be designed in accordance with 9VAC25-40 Regulation for Nutrient Enriched Waters and Discharges within the Chesapeake Bay watershed, which provides for the control of discharges from point sources affecting state waters that are designated "nutrient enriched waters" or are located within the Chesapeake Bay watershed, which includes the James River Basin, 9VAC25-720 Water Quality Management Planning Regulation, and §62.1-44.19:15 of the Code of Virginia, which establishes treatment technology and offset requirements for new and expanded facilities in the Chesapeake Bay watershed.

Per §62.1-44.19:15 of the Code of Virginia, an owner or operator of a facility authorized by a VPDES permit first issued before July 1, 2005, that expands his facility to discharge 40,000 gallons or more per day up to and including 99,999 gallons per day, or an equivalent load, directly into tidal or nontidal waters, shall demonstrate to the Department that he has acquired waste load allocations sufficient to offset any increase in his delivered total nitrogen and delivered total phosphorus loads resulting from any expansion beyond his permitted capacity as of July 1, 2005.

Per DEQ Guidance Memo No. 07-2008 Permitting Considerations for Facilities in the Chesapeake Bay Watershed, Table 1 summarizes total nitrogen and total phosphorous concentrations associated with levels of treatment technology as follows:

Parameter	Level of Technology	Concentration (mg/l)
Total N	Secondary	18.7
	BNR (Biological Nutrient Removal)	8
	SOA (State of the Art)	3
Total P	Secondary	2.5
	BNR	1
	SOA	0.3

DEQ Guidance Memo No. 07-2008, Table 2 summarizes the technology requirements for new and expanding facilities located in the Chesapeake Bay watershed as follows:

Proposed Design Flow	New Facility?	Receiving Stream	Minimum Treatment Technology
0.1 MGD> Q ≥ 0.04 MGD	No	Tidal or Non-Tidal	Secondary Treatment
0.1 MGD> Q ≥ 0.04 MGD	Yes	Tidal or Non-Tidal	BNR
0.5 MGD> Q ≥ 0.1 MGD		Non-Tidal	BNR
Q≥ 0.1 MGD		Tidal	SOA
Q≥ 0.5 MGD		Non-Tidal	SOA

However, 9VAC25-40-70 A.4. notes that the Board may establish a technology based standard and associated concentration limitation less stringent than the applicable standard specified, based on a demonstration by the owner that the specified standard is not technically or economically feasible, provided that the discharge achieve an annual total nitrogen waste load allocation and an annual total phosphorous waste load allocation required by the Water Quality Management Planning Regulation (9VAC25-720).

Based on the above tables 1 and 2 of the DEQ Guidance Memo and the current permit design flow of 60,000 gpd, the current waste load allocation for the Town of Surry WWTP is calculated as follows using secondary treatment level concentrations:

Total N: 18.7 mg/l x 0.06 MGD x 8.3438 lbs/gal x 365 days/yr = 3,417 pounds/yr

Total P: 2.5 mg/l x 0.06 MGD x 8.3438 lbs/day x 365 days/yr = 457 pound/yr

The maximum Total Nitrogen and Total Phosphorous limits required to offset the current waste load allocations at the revised permit flow of 99,000 gpd are calculated as follows:

X mg/l TN x 0.099 MGD x 8.3438 lbs/gal x 365 days/yr = 3,417 pounds/yr

X = 11.33 mg/l TN

X mg/l TP x 0.099 MGD x 8.3438 lbs/day x 365 days/yr = 457 pound/yr

X = 1.5 mg/l TP

Therefore, the Total Nitrogen must be lower than 11.33 mg/l and the Total Phosphorous must be lower than 1.5 mg/l to exactly offset the current waste load allocations with the increased permitted flow of 99,000 gpd and avoid the need to purchase nutrient credits for the difference.

Although the plant technically only needs to provide secondary treatment based on Table 2 of the DEQ Guidance Memo and meet a TN of 18.7 mg/l and a TP of 2.5 mg/l, the proposed treatment system will be designed to meet a total nitrogen limit of 8 mg/l and a total phosphorous limit of 1 mg/l in order to self offset its waste load allocation and to provide flexibility to meet potential changes in the future regulations.

Based on a revised permit design flow of 99,000 gpd, the future waste load allocation for the Town of Surry WWTP is calculated as follows:

Total N: 8 mg/l x 0.099 MGD x 8.3438 lbs/gal x 365 days/yr = 2,412 pounds/yr

Total P: 1 mg/l x 0.099 MGD x 8.3438 lbs/day x 365 days/yr = 302 pound/yr

The offset between the current and future waste load allocations is calculated as follows:

Δ TN = 2,412 lbs/yr – 3,417 lbs/yr = -1,005 lbs/yr

Δ TP = 302 lbs/yr – 457 lbs/yr = -155 lbs/yr

Therefore, the Town would not be required to purchase nutrient credits if the treatment plant is design to meet a Total Nitrogen limit of 8 mg/l and a Total Phosphorus limit of 1 mg/l.

The SBR treatment system will be designed in accordance with 9 VAC 25-790-710 of the Virginia Sewage Collection and Treatment (SCAT) regulations.

The tertiary filter will be designed in accordance with 9 VAC 25-790-860 of the SCAT regulations. The filters shall be sized for 99,000 gpd and designed to meet future permit limits of 8 mg/l of Total Nitrogen and 1 mg/l of Total Phosphorous.

Attachment 2:
Stream Sanitation Analysis Memorandum (2014) and Flow Frequency Memorandum (2014)

MEMORANDUM

DEPARTMENT OF ENVIRONMENTAL QUALITY

Piedmont Regional Office

4949-A Cox Road, Glen Allen, VA 23060-6296 **804/527-5020**

SUBJECT: Stream Sanitation Analysis – Dark Swamp, UT
Town of Surry WWTP (VA0061646)

TO: Adam Eller

FROM: Jennifer Palmore, P.G.

DATE: July 25, 2014

A request for a stream sanitation analysis for the Town of Surry wastewater treatment plant was received on 6/20/14. The town has requested an increase in their permitted design flow from 0.060 MGD to 0.099 MGD.

Background

The facility discharges to an unnamed tributary of Dark Swamp at rivermile 2CXBA000.27. The receiving stream is shown as an intermittent tributary on the USGS Surry Quadrangle (see attached flow frequency memorandum.)

The modeling effort for the current 0.060 MGD facility was conducted on 4/20/1998 by D. X. Ren. During the site visit, Ren determined that the discharge is "just 0.1-0.3 mile away from Dark Swamp." Based on this, "standard swamp effluent limits" were proposed, as follows:

Q = 0.06 MGD
BOD_5 = 10.0 mg/L
TSS = 10.0 mg/L
DO = 3.0 mg/L
Cl_2 = 0.011 mg/L

Current Analysis

Due to the proposed expansion, Adam Eller and I performed a site visit on July 22, 2014. The outfall location and structure are not expected to change. The stream was walked from the outfall downstream approximately 0.27 mile to its mouth at XHC - Dark Swamp, UT. Upstream the receiving stream has a well-defined channel with a sandy bottom; the water was clear and free of algae. As the stream flows downstream, the channel widens and slows and there was an increase in the amount of bottom algae. At the mouth of the stream, it enters a marshy braided area, as shown on the aerial photograph. Due to the marsh, the stream is considered unmodelable using Regional Model 4.1, therefore effluent limits from A.J. Anthony's March 9, 1987 memorandum "Advisory Notification of Effluent Limits for Swamp and Marsh Waters" are recommended (see below). In addition, a minimum dissolved oxygen limit of 5.0 mg/L is suggested to protect the free-flowing portion of the stream.

Q = 0.099 MGD
$cBOD_5$ = 10 mg/L
TKN = 3.0 mg/L
DO (min) = 5.0 mg/L

If you have any questions or need any additional information, please do not hesitate to contact me.


Outfall 001

Near mouth of the tributary


Downstream

Aerial map

MEMORANDUM
DEPARTMENT OF ENVIRONMENTAL QUALITY
Piedmont Regional Office
4949-A Cox Road
Glen Allen, Virginia 23060

SUBJECT: Flow Frequency Determination / 303(d) Status
Town of Surry STP – VA0061646

TO: Adam Eller

FROM: Jennifer Palmore, P.G.

DATE: July 23, 2014

COPIES: File

The Town of Surry's wastewater treatment plant discharges to an unnamed tributary of Dark Swamp in Surry County. The outfall is located at rivermile 2CXBA000.27. Stream flow frequencies are required for use in developing effluent limitations for the VPDES permit.

At the discharge point, the receiving stream is shown to be an intermittent stream on the USGS Surry Quadrangle 7½' topographic map. The flow frequencies for intermittent streams are shown below.

Unnamed tributary at discharge point:

1Q30 = 0.0 cfs	High Flow 1Q10 = 0.0 cfs
1Q10 = 0.0 cfs	High Flow 7Q10 = 0.0 cfs
7Q10 = 0.0 cfs	High Flow 30Q10 = 0.0 cfs
30Q10 = 0.0 cfs	HM = 0.0 cfs
30Q5 = 0.0 cfs	

Due to its intermittent nature, the tributary is considered a Tier 1 water. It is appropriate to use effluent data, rather than ambient stream data, when calculating permit limits.

During the 2012 305(b)/303(d) Water Quality Assessment report, the unnamed tributary was assessed as a Category 2B water ("Waters are of concern to the state but no Water Quality Standard exists for a specific pollutant, or the water exceeds a state screening value or toxicity test.") The Fish Consumption Use is fully supporting with observed effects due to a VDH fish consumption advisory for kepone. The other Designated Uses were not assessed.

The WWTP was addressed in the Chesapeake Bay TMDL, which was approved by the EPA on 12/29/2010. The TMDL allocates loads for total nitrogen, total phosphorus, and total suspended solids to protect the dissolved oxygen and submerged aquatic vegetation acreage criteria in the Chesapeake Bay and its tidal tributaries. The discharge is included in the aggregated loads for non-significant wastewater dischargers in the oligohaline James River estuary (JMSOH). The nutrient allocations are administered through the Watershed Nutrient General Permit; the TSS allocations are considered aggregated and facilities with technology-based TSS limits are considered to be in conformance with the TMDL.

If you have any questions concerning this analysis, please let me know.

Attachment 3:
Effluent Limitation Development for 0.099 MGD Facility (Includes MSTRANTI Data Source Report; DMR data; MSTRANTI; STATS.exe; and $cBOD_5$, TSS & TKN loading calculations)

MSTRANTI DATA SOURCE REPORT (0.099 MGD Facility)

Stream Information	
Mean Hardness	All Stream Information is considered the same as the Effluent Information due to the zero low flow / intermittent nature of the receiving stream.
90% Temperature (annual)	
90% Temperature (wet season)	
90% Maximum pH	
10% Maximum pH	
Tier Designation	Tier 1, per 2014 Flow Frequency Analysis.
Stream Flows	
All Data	From 2014 Flow Frequency Analysis.
Mixing Information	
All Data	No mixing is allowed due to the intermittent nature of the receiving stream.
Effluent Information	
Mean Hardness	No recent data are available. The hardness concentration used (25 mg/L) is a conservative assumption.
90% Temperature (annual)	A conservative analytical approach was taken by using the maximum daily temperature value reported on the permit application.
90% Maximum pH	Calculated from data reported on DMR's submitted between and July 2010 and April 2014.
10% Maximum pH	
Discharge Flow	Existing Facility is 0.060 MGD; 0.099 MGD Design Flow was indicated in the permit modification application.

Data Location:

Stream Sanitation Analysis – (**Attachment 2)**
DMR Data / Effluent Characteristics – (**Attachment 3)**
Flow Frequency Analysis – (**Attachment 3)**

DMR Data:

Facility Name: Town of Surry WWTF Outfall 001:

Permit No:VA0061646

Parameter Code	Parameter Description	Quant Avg	Quant Max	Conc Avg	Conc Min	Conc Max	Due Date	Received Date
001	**FLOW**	0.068	0.82	NULL	NULL	NULL	10-Jul-10	12-Jul-10
		0.056	0.067	NULL	NULL	NULL	10-Aug-10	11-Aug-10
		0.047	0.063	NULL	NULL	NULL	10-Sep-10	10-Sep-10
		0.051	0.229	NULL	NULL	NULL	10-Oct-10	12-Oct-10
		0.064	0.104	NULL	NULL	NULL	10-Nov-10	12-Nov-10
		0.057	0.068	NULL	NULL	NULL	10-Dec-10	13-Dec-10
		0.057	0.065	NULL	NULL	NULL	10-Jan-11	11-Jan-11
		0.068	0.087	NULL	NULL	NULL	10-Feb-11	11-Feb-11
		0.083	0.107	NULL	NULL	NULL	10-Dec-11	9-Dec-11
		0.069	0.086	NULL	NULL	NULL	10-Jan-12	10-Jan-12
		0.064	0.080	NULL	NULL	NULL	10-Feb-12	10-Feb-12
		0.067	0.074	NULL	NULL	NULL	10-Mar-12	9-Mar-12
		0.064	0.077	NULL	NULL	NULL	10-Apr-12	10-Apr-12
		0.060	0.088	NULL	NULL	NULL	10-May-12	10-May-12
		0.053	0.063	NULL	NULL	NULL	10-Jun-12	8-Jun-12
		0.054	0.066	NULL	NULL	NULL	10-Jul-12	10-Jul-12
		0.057	0.109	NULL	NULL	NULL	10-Aug-12	10-Aug-12
		0.66	0.167	NULL	NULL	NULL	10-Sep-12	10-Sep-12
		0.062	0.074	NULL	NULL	NULL	10-Oct-12	9-Oct-12
		0.060	0.159	NULL	NULL	NULL	10-Nov-12	9-Nov-12
		0.059	0.081	NULL	NULL	NULL	10-Dec-12	10-Dec-12
		0.051	0.065	NULL	NULL	NULL	10-Jan-13	10-Jan-13
		0.084	0.200	NULL	NULL	NULL	10-Feb-13	8-Feb-13
		0.079	0.157	NULL	NULL	NULL	10-Mar-13	11-Mar-13
		0.081	0.108	NULL	NULL	NULL	10-Apr-13	9-Apr-13
		0.066	0.087	NULL	NULL	NULL	10-May-13	9-May-13
		0.067	0.094	NULL	NULL	NULL	10-Jun-13	10-Jun-13
		0.076	0.205	NULL	NULL	NULL	10-Jul-13	10-Jul-13
		0.0069	0.125	NULL	NULL	NULL	10-Aug-13	12-Aug-13
		0.072	0.167	NULL	NULL	NULL	10-Sep-13	10-Sep-13
		0.048	0.060	NULL	NULL	NULL	10-Oct-13	8-Oct-13
		0.049	0.074	NULL	NULL	NULL	10-Nov-13	12-Nov-13
		0.045	0.045	NULL	NULL	NULL	10-Dec-13	9-Dec-13

		0.078	0.122	NULL	NULL	NULL	10-Jan-14	9-Jan-14
		0.076	0.117	NULL	NULL	NULL	10-Feb-14	10-Feb-14
		0.073	0.113	NULL	NULL	NULL	10-Mar-14	10-Mar-14
		0.060	0.104	NULL	NULL	NULL	10-Apr-14	10-Apr-14
002	**pH**	NULL	NULL	NULL	6.40	7.48	10-Jul-10	12-Jul-10
		NULL	NULL	NULL	6.64	7.91	10-Aug-10	11-Aug-10
		NULL	NULL	NULL	6.90	8.08	10-Sep-10	10-Sep-10
		NULL	NULL	NULL	6.54	7.54	10-Oct-10	12-Oct-10
		NULL	NULL	NULL	6.39	7.68	10-Nov-10	12-Nov-10
		NULL	NULL	NULL	6.60	7.50	10-Dec-10	13-Dec-10
		NULL	NULL	NULL	6.54	7.38	10-Jan-11	11-Jan-11
		NULL	NULL	NULL	6.57	7.33	10-Feb-11	11-Feb-11
		NULL	NULL	NULL	6.49	7.60	10-Dec-11	9-Dec-11
		NULL	NULL	NULL	6.52	7.71	10-Jan-12	10-Jan-12
		NULL	NULL	NULL	6.55	6.98	10-Feb-12	10-Feb-12
		NULL	NULL	NULL	6.21	6.86	10-Mar-12	9-Mar-12
		NULL	NULL	NULL	6.56	7.78	10-Apr-12	10-Apr-12
		NULL	NULL	NULL	6.70	7.06	10-May-12	10-May-12
		NULL	NULL	NULL	6.789	7.46	10-Jun-12	8-Jun-12
		NULL	NULL	NULL	6.80	7.29	10-Jul-12	10-Jul-12
		NULL	NULL	NULL	6.57	7.08	10-Aug-12	10-Aug-12
		NULL	NULL	NULL	6.42	6.99	10-Sep-12	10-Sep-12
		NULL	NULL	NULL	6.56	7.97	10-Oct-12	9-Oct-12
		NULL	NULL	NULL	6.49	7.45	10-Nov-12	9-Nov-12
		NULL	NULL	NULL	6.47	7.46	10-Dec-12	10-Dec-12
		NULL	NULL	NULL	6.26	7.71	10-Jan-13	10-Jan-13
		NULL	NULL	NULL	7.30	6.48	10-Feb-13	8-Feb-13
		NULL	NULL	NULL	6.81	7.30	10-Mar-13	11-Mar-13
		NULL	NULL	NULL	6.72	7.29	10-Apr-13	9-Apr-13
		NULL	NULL	NULL	6.75	7.48	10-May-13	9-May-13
		NULL	NULL	NULL	6.79	7.35	10-Jun-13	10-Jun-13
		NULL	NULL	NULL	6.69	8.03	10-Jul-13	10-Jul-13
		NULL	NULL	NULL	6.76	7.74	10-Aug-13	12-Aug-13
		NULL	NULL	NULL	6.61	7.25	10-Sep-13	10-Sep-13
		NULL	NULL	NULL	6.63	7.24	10-Oct-13	8-Oct-13
		NULL	NULL	NULL	6.77	7.35	10-Nov-13	12-Nov-13
		NULL	NULL	NULL	6.74	8.44	10-Dec-13	9-Dec-13
		NULL	NULL	NULL	6.39	6.98	10-Jan-14	9-Jan-14
		NULL	NULL	NULL	6.71	8.08	10-Feb-14	10-Feb-14
		NULL	NULL	NULL	7.04	7.64	10-Mar-14	10-Mar-14

		NULL	NULL	NULL	6.87	7.45	10-Apr-14	10-Apr-14
		90th percentile max:				**7.99**		
		10th percentile max:				**6.99**		
004	**TSS**	0.62	0.62	2.40	NULL	2.40	10-Jul-10	12-Jul-10
		0.69	0.69	3.00	NULL	3.00	10-Aug-10	11-Aug-10
		0.77	0.77	4.60	NULL	4.60	10-Sep-10	10-Sep-10
		0.51	0.51	3.20	NULL	3.20	10-Oct-10	12-Oct-10
		0.42	0.42	1.90	NULL	1.90	10-Nov-10	12-Nov-10
		0.57	0.57	2.60	NULL	2.60	10-Dec-10	13-Dec-10
		1.10	1.10	5.00	NULL	5.00	10-Jan-11	11-Jan-11
		1.02	1.02	4.20	NULL	4.20	10-Feb-11	11-Feb-11
		1350	1350	4.00	NULL	4.00	10-Dec-11	9-Dec-11
		1570	1570	6.2	NULL	6.2	10-Jan-12	10-Jan-12
		1640	1640	7.10	NULL	7.10	10-Feb-12	10-Feb-12
		660	660	2.9	NULL	2.9	10-Mar-12	9-Mar-12
		1400	1400	6.4	NULL	6.4	10-Apr-12	10-Apr-12
		770	770	3.30	NULL	3.30	10-May-12	10-May-12
		730	730	3.40	NULL	3.40	10-Jun-12	8-Jun-12
		1380	1380	7.0	NULL	7.0	10-Jul-12	10-Jul-12
		380	380	17.00	NULL	17.00	10-Aug-12	10-Aug-12
		2130	2130	7.3	NULL	7.3	10-Sep-12	10-Sep-12
		560	560	2.5	NULL	2.5	10-Oct-12	9-Oct-12
		1040	1040	5.5	NULL	5.5	10-Nov-12	9-Nov-12
		1490	1490	6.90	NULL	6.90	10-Dec-12	10-Dec-12
		700	700	3.8	NULL	3.8	10-Jan-13	10-Jan-13
		5420	8520	11.35	NULL	15.00	10-Feb-13	8-Feb-13
		1990	1990	5.00	NULL	5.00	10-Mar-13	11-Mar-13
		1480	1480	5.20	NULL	5.20	10-Apr-13	9-Apr-13
		1910	1910	7.90	NULL	7.90	10-May-13	9-May-13
		1500	1500	6.50	NULL	6.50	10-Jun-13	10-Jun-13
		630	630	2.7	NULL	2.7	10-Jul-13	10-Jul-13
		1090	1090	4.50	NULL	4.50	10-Aug-13	12-Aug-13
		840	840	3.10	NULL	3.10	10-Sep-13	10-Sep-13
		590	590	3.70	NULL	3.70	10-Oct-13	8-Oct-13
		850	850	4.80	NULL	4.80	10-Nov-13	12-Nov-13
		1060	1060	5.10	NULL	5.10	10-Dec-13	9-Dec-13
		990	990	3.40	NULL	3.40	10-Jan-14	9-Jan-14
		1190	1190	3.70	NULL	3.70	10-Feb-14	10-Feb-14
		740	740	3.00	NULL	3.00	10-Mar-14	10-Mar-14
		1980	1980	9.20	NULL	9.20	10-Apr-14	10-Apr-14

005	**CL2, TOTAL**	NULL	NULL	<QL	NULL	<QL	10-Jul-10	12-Jul-10
		NULL	NULL	<QL	NULL	<QL	10-Aug-10	11-Aug-10
		NULL	NULL	<QL	NULL	<QL	10-Sep-10	10-Sep-10
		NULL	NULL	<QL	NULL	<QL	10-Oct-10	12-Oct-10
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		NULL	NULL	<QL	NULL	<QL	10-Jan-11	11-Jan-11
		NULL	NULL	<QL	NULL	<QL	10-Feb-11	11-Feb-11
		NULL	NULL	<QL	NULL	<QL	10-Dec-11	9-Dec-11
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		NULL	NULL	<QL	NULL	<QL	10-Mar-12	9-Mar-12
		NULL	NULL	<QL	NULL	<QL	10-Apr-12	10-Apr-12
		NULL	NULL	<QL	NULL	<QL	10-May-12	10-May-12
		NULL	NULL	<QL	NULL	<QL	10-Jun-12	8-Jun-12
		NULL	NULL	<QL	NULL	<QL	10-Jul-12	10-Jul-12
		NULL	NULL	<QL	NULL	<QL	10-Aug-12	10-Aug-12
		NULL	NULL	<QL	NULL	<QL	10-Sep-12	10-Sep-12
		NULL	NULL	<QL	NULL	<QL	10-Oct-12	9-Oct-12
		NULL	NULL	<QL	NULL	<QL	10-Nov-12	9-Nov-12
		NULL	NULL	<QL	NULL	<QL	10-Dec-12	10-Dec-12
		NULL	NULL	<QL	NULL	<QL	10-Jan-13	10-Jan-13
		NULL	NULL	<QL	NULL	<QL	10-Feb-13	8-Feb-13
		NULL	NULL	<QL	NULL	<QL	10-Mar-13	11-Mar-13
		NULL	NULL	<QL	NULL	<QL	10-Apr-13	9-Apr-13
		NULL	NULL	<QL	NULL	<QL	10-May-13	9-May-13
		NULL	NULL	<QL	NULL	<QL	10-Jun-13	10-Jun-13
		NULL	NULL	<QL	NULL	<QL	10-Jul-13	10-Jul-13
		NULL	NULL	<QL	NULL	<QL	10-Aug-13	12-Aug-13
		NULL	NULL	<QL	NULL	<QL	10-Sep-13	10-Sep-13
		NULL	NULL	<QL	NULL	<QL	10-Oct-13	8-Oct-13
		NULL	NULL	<QL	NULL	<QL	10-Nov-13	12-Nov-13
		NULL	NULL	<QL	NULL	<QL	10-Dec-13	9-Dec-13
		NULL	NULL	<QL	NULL	<QL	10-Jan-14	9-Jan-14
		NULL	NULL	<QL	NULL	<QL	10-Feb-14	10-Feb-14
		NULL	NULL	<QL	NULL	<QL	10-Mar-14	10-Mar-14
		NULL	NULL	<QL	NULL	<QL	10-Apr-14	10-Apr-14
007	**DO**	NULL	NULL	NULL	6.86	NULL	10-Jul-10	12-Jul-10
		NULL	NULL	NULL	6.56	NULL	10-Aug-10	11-Aug-10
		NULL	NULL	NULL	6.78	NULL	10-Sep-10	10-Sep-10

		NULL	NULL	NULL	6.72	NULL	10-Oct-10	12-Oct-10
		NULL	NULL	NULL	7.14	NULL	10-Nov-10	12-Nov-10
		NULL	NULL	NULL	7.49	NULL	10-Dec-10	13-Dec-10
		NULL	NULL	NULL	8.20	NULL	10-Jan-11	11-Jan-11
		NULL	NULL	NULL	9.11	NULL	10-Feb-11	11-Feb-11
		NULL	NULL	NULL	6.58	NULL	10-Dec-11	9-Dec-11
		NULL	NULL	NULL	6.22	NULL	10-Jan-12	10-Jan-12
		NULL	NULL	NULL	6.12	NULL	10-Feb-12	10-Feb-12
		NULL	NULL	NULL	6.28	NULL	10-Mar-12	9-Mar-12
		NULL	NULL	NULL	7.12	NULL	10-Apr-12	10-Apr-12
		NULL	NULL	NULL	6.51	NULL	10-May-12	10-May-12
		NULL	NULL	NULL	7.07	NULL	10-Jun-12	8-Jun-12
		NULL	NULL	NULL	6.55	NULL	10-Jul-12	10-Jul-12
		NULL	NULL	NULL	6.39	NULL	10-Aug-12	10-Aug-12
		NULL	NULL	NULL	6.77	NULL	10-Sep-12	10-Sep-12
		NULL	NULL	NULL	6.57	NULL	10-Oct-12	9-Oct-12
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		NULL	NULL	NULL	7.36	NULL	10-Dec-12	10-Dec-12
		NULL	NULL	NULL	7.81	NULL	10-Jan-13	10-Jan-13
		NULL	NULL	NULL	8.22	NULL	10-Feb-13	8-Feb-13
		NULL	NULL	NULL	8.10	NULL	10-Mar-13	11-Mar-13
		NULL	NULL	NULL	8.61	NULL	10-Apr-13	9-Apr-13
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		NULL	NULL	NULL	7.84	NULL	10-Jun-13	10-Jun-13
		NULL	NULL	NULL	6.9	NULL	10-Jul-13	10-Jul-13
		NULL	NULL	NULL	6.83	NULL	10-Aug-13	12-Aug-13
		NULL	NULL	NULL	6.71	NULL	10-Sep-13	10-Sep-13
		NULL	NULL	NULL	6.8	NULL	10-Oct-13	8-Oct-13
		NULL	NULL	NULL	7.12	NULL	10-Nov-13	12-Nov-13
		NULL	NULL	NULL	7.42	NULL	10-Dec-13	9-Dec-13
		NULL	NULL	NULL	6.65	NULL	10-Jan-14	9-Jan-14
		NULL	NULL	NULL	7.62	NULL	10-Feb-14	10-Feb-14
		NULL	NULL	NULL	7.51	NULL	10-Mar-14	10-Mar-14
		NULL	NULL	NULL	8.54	NULL	10-Apr-14	10-Apr-14
039	**AMMONIA, AS N**	NULL	NULL	NULL	NULL	NULL	10-Jul-10	12-Jul-10
		NULL	NULL	X	NULL	X	10-Aug-10	11-Aug-10
		NULL	NULL	NR	NULL	NR	10-Sep-10	10-Sep-10
		NULL	NULL	0.20	NULL	0.20	10-Oct-10	12-Oct-10
		NULL	NULL	0.34	NULL	0.34	10-Nov-10	12-Nov-10
		NULL	NULL	0.25	NULL	0.25	10-Dec-	13-Dec-10

						10	
	NULL	NULL	0.36	NULL	0.36	10-Jan-11	11-Jan-11
	NULL	NULL	0.20	NULL	0.20	10-Feb-11	11-Feb-11
	NULL	NULL	0.32	NULL	0.32	10-Dec-11	9-Dec-11
	NULL	NULL	0.22	NULL	0.22	10-Jan-12	10-Jan-12
	NULL	NULL	0.20	NULL	0.20	10-Feb-12	10-Feb-12
	NULL	NULL	0	NULL	0	10-Mar-12	9-Mar-12
	NULL	NULL	0.61	NULL	.61	10-Apr-12	10-Apr-12
	NULL	NULL	0.29	NULL	0.29	10-May-12	10-May-12
	NULL	NULL	0.24	NULL	0.24	10-Jun-12	8-Jun-12
	NULL	NULL	0.24	NULL	0.24	10-Jul-12	10-Jul-12
	NULL	NULL	0.21	NULL	0.21	10-Aug-12	10-Aug-12
	NULL	NULL	4.86	NULL	4.86	10-Sep-12	10-Sep-12
	NULL	NULL	0.35	NULL	0.35	10-Oct-12	9-Oct-12
	NULL	NULL	0.27	NULL	0.27	10-Nov-12	9-Nov-12
	NULL	NULL	0.16	NULL	0.16	10-Dec-12	10-Dec-12
	NULL	NULL	0.23	NULL	0.23	10-Jan-13	10-Jan-13
	NULL	NULL	0.37	NULL	0.37	10-Feb-13	8-Feb-13
	NULL	NULL	0.15	NULL	0.15	10-Mar-13	11-Mar-13
	NULL	NULL	0.28	NULL	0.28	10-Apr-13	9-Apr-13
	NULL	NULL	<QL	NULL	<QL	10-May-13	9-May-13
	NULL	NULL	0.35	NULL	0.35	10-Jun-13	10-Jun-13
	NULL	NULL	0.10	NULL	0.10	10-Jul-13	10-Jul-13
	NULL	NULL	0.10	NULL	0.10	10-Aug-13	12-Aug-13
	NULL	NULL	0.10	NULL	0.10	10-Sep-13	10-Sep-13
	NULL	NULL	<0.10	NULL	<0.10	10-Oct-13	8-Oct-13
	NULL	NULL	0.20	NULL	0.20	10-Nov-13	12-Nov-13
	NULL	NULL	0.24	NULL	0.24	10-Dec-13	9-Dec-13
	NULL	NULL	2.77	NULL	2.77	10-Jan-14	9-Jan-14
	NULL	NULL	0.39	NULL	0.39	10-Feb-14	10-Feb-14
	NULL	NULL	0.25	NULL	0.25	10-Mar-14	10-Mar-14
	NULL	NULL	0.18	NULL	0.18	10-Apr-14	10-Apr-14
068	**TKN (N-KJEL)**	0.38	0.40	1.43	NULL	2.15	10-Jul-10	12-Jul-10
		0.28	0.48	1.27	NULL	2.09	10-Aug-10	11-Aug-10
		0.22	0.31	1.24	NULL	1.24	10-Sep-10	10-Sep-10
		0.26	0.27	1.31	NULL	1.63	10-Oct-10	12-Oct-10
		0.26	0.34	1.05	NULL	1.42	10-Nov-10	12-Nov-10
		0.27	0.52	1.21	NULL	2.35	10-Dec-10	13-Dec-10
		0.33	0.83	1.51	NULL	3.80	10-Jan-11	11-Jan-11
		0.61	0.73	2.18	NULL	2.67	10-Feb-11	11-Feb-11
		0.57	1.00	1.80	NULL	3.00	10-Dec-	9-Dec-11

						11	
	0.47	0.66	1.76	NULL	2.46	10-Jan-12	10-Jan-12
	0.38	0.60	1.53	NULL	2.17	10-Feb-12	10-Feb-12
	0.77	1.05	2.93	NULL	4.14	10-Mar-12	9-Mar-12
	0.83	1.47	3.45	NULL	6.08	10-Apr-12	10-Apr-12
	0.50	0.61	2.18	NULL	2.47	10-May-12	10-May-12
	0.37	01.53	1.85	NULL	2.53	10-Jun-12	8-Jun-12
	0.35	0.43	1.73	NULL	2.15	10-Jul-12	10-Jul-12
	400	560	2.01	NULL	2.52	10-Aug-12	10-Aug-12
	650	2190	2.42	NULL	7.04	10-Sep-12	10-Sep-12
	920	2090	3.9	NULL	8.9	10-Oct-12	9-Oct-12
	380	790	1.55	NULL	2.46	10-Nov-12	9-Nov-12
	250	430	1.13	NULL	2.04	10-Dec-12	10-Dec-12
	430	720	2.18	NULL	3.40	10-Jan-13	10-Jan-13
	580	940	1.88	NULL	2.37	10-Feb-13	8-Feb-13
	490	650	1.65	NULL	2.20	10-Mar-13	11-Mar-13
	500	670	1.53	NULL	1.92	10-Apr-13	9-Apr-13
	360	630	1.52	NULL	2.51	10-May-13	9-May-13
	770	1650	3.13	NULL	6.91	10-Jun-13	10-Jun-13
	730	1310	2.72	NULL	3.76	10-Jul-13	10-Jul-13
	580	1360	1.87	NULL	2.87	10-Aug-13	12-Aug-13
	140	220	0.78	NULL	1.05	10-Sep-13	10-Sep-13
	<110	160	<0.62	NULL	0.97	10-Oct-13	8-Oct-13
	220	400	1.10	NULL	1.85	10-Nov-13	12-Nov-13
	220	220	1.37	NULL	3.97	10-Dec-13	9-Dec-13
	1140	1140	4.22	NULL	4.22	10-Jan-14	9-Jan-14
	540	780	1.93	NULL	2.58	10-Feb-14	10-Feb-14
	950	2800	3.30	NULL	9.50	10-Mar-14	10-Mar-14
	290	380	1.38	NULL	1.87	10-Apr-14	10-Apr-14
120	**E.COLI**	NULL	NULL	31	NULL	NULL	10-Dec-11	9-Dec-11
		NULL	NULL	358	NULL	NULL	10-Jan-12	10-Jan-12
		NULL	NULL	192	NULL	NULL	10-Feb-12	10-Feb-12
		NULL	NULL	2226	NULL	NULL	10-Mar-12	9-Mar-12
		NULL	NULL	198	NULL	NULL	10-Apr-12	10-Apr-12
		NULL	NULL	601	NULL	NULL	10-May-12	10-May-12
		NULL	NULL	80	NULL	NULL	10-Jun-12	8-Jun-12
		NULL	NULL	346	NULL	NULL	10-Jul-12	10-Jul-12
		NULL	NULL	371	NULL	NULL	10-Aug-12	10-Aug-12
		NULL	NULL	>107	NULL	NULL	10-Sep-12	10-Sep-12
		NULL	NULL	>1717	NULL	NULL	10-Oct-12	9-Oct-12
		NULL	NULL	845	NULL	NULL	10-Nov-12	9-Nov-12

		NULL	NULL	722	NULL	NULL	10-Dec-12	10-Dec-12
		NULL	NULL	359	NULL	NULL	10-Jan-13	10-Jan-13
		NULL	NULL	392	NULL	NULL	10-Feb-13	8-Feb-13
		NULL	NULL	27	NULL	NULL	10-Mar-13	11-Mar-13
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		NULL	NULL	120	NULL	NULL	10-May-13	9-May-13
		NULL	NULL	284	NULL	NULL	10-Jun-13	10-Jun-13
		NULL	NULL	454	NULL	NULL	10-Jul-13	10-Jul-13
		NULL	NULL	302	NULL	NULL	10-Aug-13	12-Aug-13
		NULL	NULL	316	NULL	NULL	10-Sep-13	10-Sep-13
		NULL	NULL	>2420	NULL	NULL	10-Oct-13	8-Oct-13
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		NULL	NULL	100	NULL	NULL	10-Jan-14	9-Jan-14
		NULL	NULL	98	NULL	NULL	10-Feb-14	10-Feb-14
		NULL	NULL	1051	NULL	NULL	10-Mar-14	10-Mar-14
		NULL	NULL	189	NULL	NULL	10-Apr-14	10-Apr-14
157	**CL2, TOTAL CONTACT**	NULL	NULL	NULL	1.20	NULL	10-Jul-10	12-Jul-10
		NULL	NULL	NULL	1.00	NULL	10-Aug-10	11-Aug-10
		NULL	NULL	NULL	1.00	NULL	10-Sep-10	10-Sep-10
		NULL	NULL	NULL	1.00	NULL	10-Oct-10	12-Oct-10
		NULL	NULL	NULL	1.00	NULL	10-Nov-10	12-Nov-10
		NULL	NULL	NULL	1.00	NULL	10-Dec-10	13-Dec-10
		NULL	NULL	NULL	1.00	NULL	10-Jan-11	11-Jan-11
		NULL	NULL	NULL	1.00	NULL	10-Feb-11	11-Feb-11
		NULL	NULL	NULL	0.80	NULL	10-Dec-11	9-Dec-11
		NULL	NULL	NULL	0.80	NULL	10-Jan-12	10-Jan-12
		NULL	NULL	NULL	0.90	NULL	10-Feb-12	10-Feb-12
		NULL	NULL	NULL	0.8	NULL	10-Mar-12	9-Mar-12
		NULL	NULL	NULL	0.8	NULL	10-Apr-12	10-Apr-12
		NULL	NULL	NULL	0.90	NULL	10-May-12	10-May-12
		NULL	NULL	NULL	0.80	NULL	10-Jun-12	8-Jun-12
		NULL	NULL	NULL	0.90	NULL	10-Jul-12	10-Jul-12
		NULL	NULL	NULL	0.90	NULL	10-Aug-12	10-Aug-12
		NULL	NULL	NULL	1.00	NULL	10-Sep-12	10-Sep-12
		NULL	NULL	NULL	0.70	NULL	10-Oct-12	9-Oct-12
		NULL	NULL	NULL	0.70	NULL	10-Nov-12	9-Nov-12
		NULL	NULL	NULL	0.70	NULL	10-Dec-12	10-Dec-12
		NULL	NULL	NULL	0.80	NULL	10-Jan-13	10-Jan-13
		NULL	NULL	NULL	0.80	NULL	10-Feb-13	8-Feb-13

		NULL	NULL	NULL	1.00	NULL	10-Mar-13	11-Mar-13
		NULL	NULL	NULL	0.90	NULL	10-Apr-13	9-Apr-13
		NULL	NULL	NULL	1.00	NULL	10-May-13	9-May-13
		NULL	NULL	NULL	0.90	NULL	10-Jun-13	10-Jun-13
		NULL	NULL	NULL	0.80	NULL	10-Jul-13	10-Jul-13
		NULL	NULL	NULL	0.80	NULL	10-Aug-13	12-Aug-13
		NULL	NULL	NULL	1.00	NULL	10-Sep-13	10-Sep-13
		NULL	NULL	NULL	1.00	NULL	10-Oct-13	8-Oct-13
		NULL	NULL	NULL	0.80	NULL	10-Nov-13	12-Nov-13
		NULL	NULL	NULL	0.90	NULL	10-Dec-13	9-Dec-13
		NULL	NULL	NULL	0.80	NULL	10-Jan-14	9-Jan-14
		NULL	NULL	NULL	0.80	NULL	10-Feb-14	10-Feb-14
		NULL	NULL	NULL	0.90	NULL	10-Mar-14	10-Mar-14
		NULL	NULL	NULL	0.90	NULL	10-Apr-14	10-Apr-14
159	**CBOD5**	1.32	1.32	5.20	NULL	10.00	10-Jul-10	12-Jul-10
		1.39	1.85	6.50	NULL	9.00	10-Aug-10	11-Aug-10
		0.69	0.80	3.75	NULL	4.00	10-Sep-10	10-Sep-10
		0.85	0.64	3.80	NULL	4.00	10-Oct-10	12-Oct-10
		0.95	1.12	4.00	NULL	5.00	10-Nov-10	12-Nov-10
		1.01	1.12	4.50	NULL	5.00	10-Dec-10	13-Dec-10
		1.10	0.85	4.00	NULL	5.00	10-Jan-11	11-Jan-11
		1.98	2.93	7.00	NULL	9.00	10-Feb-11	11-Feb-11
		1300	1400	4.26	NULL	5.00	10-Dec-11	9-Dec-11
		950	1070	3.5	NULL	4.00	10-Jan-12	10-Jan-12
		1240	1240	5.00	NULL	6.00	10-Feb-12	10-Feb-12
		1.43	1.52	5.6	NULL	6	10-Mar-12	9-Mar-12
		1300	1940	5.5	NULL	8	10-Apr-12	10-Apr-12
		0.92	0.98	4.00	NULL	4.00	10-May-12	10-May-12
		530	620	2.6	NULL	3.0	10-Jun-12	8-Jun-12
		650	800	3.25	NULL	4.00	10-Jul-12	10-Jul-12
		540	670	2.75	NULL	3.00	10-Aug-12	10-Aug-12
		1200	3720	4.6	NULL	12.0	10-Sep-12	10-Sep-12
		880	1640	3.75	NULL	7.0	10-Oct-12	9-Oct-12
		>810	>1120	>3.6	NULL	>4.0	10-Nov-12	9-Nov-12
		880	950	4.00	NULL	4.00	10-Dec-12	10-Dec-12
		1060	1700	5.25	NULL	8.00	10-Jan-13	10-Jan-13
		1720	3406	5.20	NULL	6.00	10-Feb-13	8-Feb-13
		1300	1300	4.50	NULL	6.00	10-Mar-13	11-Mar-13
		1450	1670	4.50	NULL	5.00	10-Apr-13	9-Apr-13
		1000	1150	4.25	NULL	5.00	10-May-13	9-May-13

		1410	1770	560	NULL	7.00	10-Jun-13	10-Jun-13
		2310	5570	8.0	NULL	16.0	10-Jul-13	10-Jul-13
		1340	2150	4.80	NULL	9.00	10-Aug-13	12-Aug-13
		400	580	2.25	NULL	3.00	10-Sep-13	10-Sep-13
		430	500	2.50	NULL	3.00	10-Oct-13	8-Oct-13
		760	1850	3.60	NULL	7.00	10-Nov-13	12-Nov-13
		560	850	3.25	NULL	5.00	10-Dec-13	9-Dec-13
		1690	1690	5.75	NULL	5.75	10-Jan-14	9-Jan-14
		1002	1820	3.80	NULL	6.00	10-Feb-14	10-Feb-14
		1900	2800	6.75	NULL	14.00	10-Mar-14	10-Mar-14
		1010	1480	5.00	NULL	8.00	10-Apr-14	10-Apr-14
196	**ZINC, TOTAL RECOVERABLE**	NULL	NULL	NULL	NULL	NULL	10-Jul-10	12-Jul-10
		NULL	NULL	X	NULL	X	10-Aug-10	11-Aug-10
		NULL	NULL	NR	NULL	NR	10-Sep-10	10-Sep-10
		NULL	NULL	28	NULL	28	10-Oct-10	12-Oct-10
		NULL	NULL	26.0	NULL	26.0	10-Nov-10	12-Nov-10
		NULL	NULL	18.0	NULL	18.0	10-Dec-10	13-Dec-10
		NULL	NULL	23.00	NULL	23.00	10-Jan-11	11-Jan-11
		NULL	NULL	56.0	NULL	56.0	10-Feb-11	11-Feb-11
		NULL	NULL	14	NULL	14	10-Dec-11	9-Dec-11
		NULL	NULL	19	NULL	19	10-Jan-12	10-Jan-12
		NULL	NULL	32	NULL	32	10-Feb-12	10-Feb-12
		NULL	NULL	18	NULL	18	10-Mar-12	9-Mar-12
		NULL	NULL	22	NULL	22	10-Apr-12	10-Apr-12
		NULL	NULL	15	NULL	15	10-May-12	10-May-12
		NULL	NULL	28	NULL	28	10-Jun-12	8-Jun-12
		NULL	NULL	22	NULL	22	10-Jul-12	10-Jul-12
		NULL	NULL	47	NULL	47	10-Aug-12	10-Aug-12
		NULL	NULL	31	NULL	31	10-Sep-12	10-Sep-12
		NULL	NULL	15	NULL	15	10-Oct-12	9-Oct-12
		NULL	NULL	19	NULL	19	10-Nov-12	9-Nov-12
		NULL	NULL	22	NULL	22	10-Dec-12	10-Dec-12
		NULL	NULL	18	NULL	18	10-Jan-13	10-Jan-13
		NULL	NULL	25	NULL	25	10-Feb-13	8-Feb-13
		NULL	NULL	18	NULL	18	10-Mar-13	11-Mar-13
		NULL	NULL	23	NULL	23	10-Apr-13	9-Apr-13
		NULL	NULL	24.5	NULL	27	10-May-13	9-May-13
		NULL	NULL	22	NULL	22	10-Jun-13	10-Jun-13
		NULL	NULL	24	NULL	24	10-Jul-13	10-Jul-13
		NULL	NULL	45	NULL	45	10-Aug-13	12-Aug-13

		NULL	NULL	28	NULL	28	10-Sep-13	10-Sep-13
		NULL	NULL	22	NULL	22	10-Oct-13	8-Oct-13
		NULL	NULL	25	NULL	25	10-Nov-13	12-Nov-13
		NULL	NULL	33	NULL	33	10-Dec-13	9-Dec-13
		NULL	NULL	39	NULL	39	10-Jan-14	9-Jan-14
		NULL	NULL	48	NULL	48	10-Feb-14	10-Feb-14
		NULL	NULL	48	NULL	48	10-Mar-14	10-Mar-14
		NULL	NULL	5	NULL	5	10-Apr-14	10-Apr-14
203	**COPPER, TOTAL RECOVERABLE**	NULL	NULL	7.	NULL	7	10-Jul-10	12-Jul-10
		NULL	NULL	26.0	NULL	26.0	10-Aug-10	11-Aug-10
		NULL	NULL	19	NULL	19	10-Sep-10	10-Sep-10
		NULL	NULL	13	NULL	13	10-Oct-10	12-Oct-10
		NULL	NULL	11.0	NULL	11.0	10-Nov-10	12-Nov-10
		NULL	NULL	8.0	NULL	8.0	10-Dec-10	13-Dec-10
		NULL	NULL	10.00	NULL	10.00	10-Jan-11	11-Jan-11
		NULL	NULL	9.00	NULL	9.00	10-Feb-11	11-Feb-11
		NULL	NULL	6	NULL	6	10-Dec-11	9-Dec-11
		NULL	NULL	6	NULL	6	10-Jan-12	10-Jan-12
		NULL	NULL	7	NULL	7	10-Feb-12	10-Feb-12
		NULL	NULL	6	NULL	8	10-Mar-12	9-Mar-12
		NULL	NULL	7	NULL	7	10-Apr-12	10-Apr-12
		NULL	NULL	6	NULL	6	10-May-12	10-May-12
		NULL	NULL	6	NULL	6	10-Jun-12	8-Jun-12
		NULL	NULL	7	NULL	7	10-Jul-12	10-Jul-12
		NULL	NULL	9.0	NULL	9.0	10-Aug-12	10-Aug-12
		NULL	NULL	4	NULL	4	10-Sep-12	10-Sep-12
		NULL	NULL	4	NULL	4	10-Oct-12	9-Oct-12
		NULL	NULL	6	NULL	6	10-Nov-12	9-Nov-12
		NULL	NULL	8	NULL	8	10-Dec-12	10-Dec-12
		NULL	NULL	7	NULL	7	10-Jan-13	10-Jan-13
		NULL	NULL	7	NULL	7	10-Feb-13	8-Feb-13
		NULL	NULL	5.0	NULL	5.0	10-Mar-13	11-Mar-13
		NULL	NULL	6.0	NULL	6.0	10-Apr-13	9-Apr-13
		NULL	NULL	6.5	NULL	7	10-May-13	9-May-13
		NULL	NULL	7	NULL	7	10-Jun-13	10-Jun-13
		NULL	NULL	7.0	NULL	7.0	10-Jul-13	10-Jul-13
		NULL	NULL	12.0	NULL	12.0	10-Aug-13	12-Aug-13
		NULL	NULL	4.5	NULL	4.5	10-Sep-13	10-Sep-13
		NULL	NULL	6.0	NULL	6.0	10-Oct-13	8-Oct-13

		NULL	NULL	6	NULL	6	10-Nov-13	12-Nov-13
		NULL	NULL	8	NULL	8	10-Dec-13	9-Dec-13
		NULL	NULL	9.0	NULL	9.0	10-Jan-14	9-Jan-14
		NULL	NULL	8	NULL	8	10-Feb-14	10-Feb-14
		NULL	NULL	10	NULL	10	10-Mar-14	10-Mar-14
		NULL	NULL	2	NULL	2	10-Apr-14	10-Apr-14
213	**CL2, INST TECH MIN LIMIT**	NULL	NULL	NULL	1.20	NULL	10-Jul-10	12-Jul-10
		NULL	NULL	NULL	X	NULL	10-Aug-10	11-Aug-10
		NULL	NULL	NULL	1.00	NULL	10-Sep-10	10-Sep-10
		NULL	NULL	NULL	1.00	NULL	10-Oct-10	12-Oct-10
		NULL	NULL	NULL	1.00	NULL	10-Nov-10	12-Nov-10
		NULL	NULL	NULL	1.00	NULL	10-Dec-10	13-Dec-10
		NULL	NULL	NULL	1.00	NULL	10-Jan-11	11-Jan-11
		NULL	NULL	NULL	1.00	NULL	10-Feb-11	11-Feb-11
		NULL	NULL	NULL	0.80	NULL	10-Dec-11	9-Dec-11
		NULL	NULL	NULL	0.80	NULL	10-Jan-12	10-Jan-12
		NULL	NULL	NULL	0.90	NULL	10-Feb-12	10-Feb-12
		NULL	NULL	NULL	0.8	NULL	10-Mar-12	9-Mar-12
		NULL	NULL	NULL	0.8	NULL	10-Apr-12	10-Apr-12
		NULL	NULL	NULL	0.9	NULL	10-May-12	10-May-12
		NULL	NULL	NULL	0.80	NULL	10-Jun-12	8-Jun-12
		NULL	NULL	NULL	0.90	NULL	10-Jul-12	10-Jul-12
		NULL	NULL	NULL	0.90	NULL	10-Aug-12	10-Aug-12
		NULL	NULL	NULL	1.00	NULL	10-Sep-12	10-Sep-12
		NULL	NULL	NULL	0.7	NULL	10-Oct-12	9-Oct-12
		NULL	NULL	NULL	0.70	NULL	10-Nov-12	9-Nov-12
		NULL	NULL	NULL	0.70	NULL	10-Dec-12	10-Dec-12
		NULL	NULL	NULL	0.80	NULL	10-Jan-13	10-Jan-13
		NULL	NULL	NULL	0.80	NULL	10-Feb-13	8-Feb-13
		NULL	NULL	NULL	1.00	NULL	10-Mar-13	11-Mar-13
		NULL	NULL	NULL	0.90	NULL	10-Apr-13	9-Apr-13
		NULL	NULL	NULL	1.00	NULL	10-May-13	9-May-13
		NULL	NULL	NULL	0.90	NULL	10-Jun-13	10-Jun-13
		NULL	NULL	NULL	0.80	NULL	10-Jul-13	10-Jul-13
		NULL	NULL	NULL	0.80	NULL	10-Aug-13	12-Aug-13
		NULL	NULL	NULL	1.00	NULL	10-Sep-13	10-Sep-13
		NULL	NULL	NULL	1.00	NULL	10-Oct-13	8-Oct-13
		NULL	NULL	NULL	0.80	NULL	10-Nov-13	12-Nov-13
		NULL	NULL	NULL	0.90	NULL	10-Dec-	9-Dec-13

						13	
		NULL	NULL	NULL	0.80	NULL	10-Jan-14	9-Jan-14
		NULL	NULL	NULL	0.80	NULL	10-Feb-14	10-Feb-14
		NULL	NULL	NULL	0.90	NULL	10-Mar-14	10-Mar-14
		NULL	NULL	NULL	0.90	NULL	10-Apr-14	10-Apr-14
872	**SULFIDE, DISSOLVED (AS S)**	NULL	NULL	NULL	NULL	NULL	10-Jul-12	NULL
		NULL	NULL	NULL	NULL	NULL	10-Jan-13	NULL
		NULL	NULL	<0.05	NULL	<0.05	10-Jul-13	21-Jul-14
		NULL	NULL	<0.05	NULL	<0.05	10-Jan-14	9-Jan-14

FRESHWATER
WATER QUALITY CRITERIA / WASTELOAD ALLOCATION ANALYSIS

Facility Name: Town of Surry WWTP Permit No.: VA0061646

Receiving Stream: Dark Swamp, UT Version: OWP Guidance Memo 00-2011 (8/24/00)

Stream Information		
Mean Hardness (as CaCO3) =	25	mg/L
90% Temperature (Annual) =	26	deg C
90% Temperature (Wet season) =	NA	deg C
90% Maximum pH =	7.99	SU
10% Maximum pH =	6.99	SU
Tier Designation (1 or 2) =	1	
Public Water Supply (PWS) Y/N? =	N	
Trout Present Y/N? =	N	
Early Life Stages Present Y/N? =	Y	

Stream Flows		
1Q10 (Annual) =	0	MGD
7Q10 (Annual) =	0	MGD
30Q10 (Annual) =	0	MGD
1Q10 (Wet season) =	0	MGD
30Q10 (Wet season)	0	MGD
30Q5 =	0	MGD
Harmonic Mean =	0	MGD

Mixing Information		
Annual - 1Q10 Mix =	0	%
- 7Q10 Mix =	0	%
- 30Q10 Mix =	0	%
Wet Season - 1Q10 Mix =	0	%
- 30Q10 Mix =	0	%

Effluent Information		
Mean Hardness (as CaCO3) =	25	mg/L
90% Temp (Annual) =	26	deg C
90% Temp (Wet season) =	NA	deg C
90% Maximum pH =	7.99	SU
10% Maximum pH =	6.99	SU
Discharge Flow =	0.099	MGD

Parameter	Background	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				**Most Limiting Allocations**			
(ug/l unless noted)	Conc.	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	**Acute**	**Chronic**	**HH (PWS)**	**HH**
Acenapthene	0	--	--	na	9.9E+02	--	--	na	9.9E+02	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**9.9E+02**
Acrolein	0	--	--	na	9.3E+00	--	--	na	9.3E+00	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**9.3E+00**
Acrylonitrile[C]	0	--	--	na	2.5E+00	--	--	na	2.5E+00	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**2.5E+00**
Aldrin [C]	0	3.0E+00	--	na	5.0E-04	3.0E+00	--	na	5.0E-04	--	--	--	--	--	--	--	--	**3.0E+00**	**--**	**na**	**5.0E-04**
Ammonia-N (mg/l) (Yearly)	0	8.57E+00	1.18E+00	na	--	8.57E+00	#######	na	--	--	--	--	--	--	--	--	--	**8.57E+00**	**1.18E+00**	**na**	**--**
Ammonia-N (mg/l) (High Flow)	0	8.57E+00	#VALUE!	na	--	8.57E+00	#VALUE!	na	--	--	--	--	--	--	--	--	--	**8.57E+00**	**#VALUE!**	**na**	**--**
Anthracene	0	--	--	na	4.0E+04	--	--	na	4.0E+04	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**4.0E+04**
Antimony	0	--	--	na	6.4E+02	--	--	na	6.4E+02	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**6.4E+02**
Arsenic	0	3.4E+02	1.5E+02	na	--	3.4E+02	1.5E+02	na	--	--	--	--	--	--	--	--	--	**3.4E+02**	**1.5E+02**	**na**	**--**
Barium	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**--**
Benzene [C]	0	--	--	na	5.1E+02	--	--	na	5.1E+02	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**5.1E+02**
Benzidine[C]	0	--	--	na	2.0E-03	--	--	na	2.0E-03	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**2.0E-03**
Benzo (a) anthracene [C]	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.8E-01**
Benzo (b) fluoranthene [C]	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.8E-01**
Benzo (k) fluoranthene [C]	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.8E-01**
Benzo (a) pyrene [C]	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.8E-01**
Bis2-Chloroethyl Ether [C]	0	--	--	na	5.3E+00	--	--	na	5.3E+00	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**5.3E+00**
Bis2-Chloroisopropyl Ether	0	--	--	na	6.5E+04	--	--	na	6.5E+04	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**6.5E+04**
Bis 2-Ethylhexyl Phthalate [C]	0	--	--	na	2.2E+01	--	--	na	2.2E+01	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**2.2E+01**
Bromoform [C]	0	--	--	na	1.4E+03	--	--	na	1.4E+03	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.4E+03**
Butylbenzylphthalate	0	--	--	na	1.9E+03	--	--	na	1.9E+03	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.9E+03**
Cadmium	0	8.2E-01	3.8E-01	na	--	8.2E-01	3.8E-01	na	--	--	--	--	--	--	--	--	--	**8.2E-01**	**3.8E-01**	**na**	**--**
Carbon Tetrachloride [C]	0	--	--	na	1.6E+01	--	--	na	1.6E+01	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.6E+01**
Chlordane [C]	0	2.4E+00	4.3E-03	na	8.1E-03	2.4E+00	4.3E-03	na	8.1E-03	--	--	--	--	--	--	--	--	**2.4E+00**	**4.3E-03**	**na**	**8.1E-03**
Chloride	0	8.6E+05	2.3E+05	na	--	8.6E+05	2.3E+05	na	--	--	--	--	--	--	--	--	--	**8.6E+05**	**2.3E+05**	**na**	**--**
TRC	0	1.9E+01	1.1E+01	na	--	1.9E+01	1.1E+01	na	--	--	--	--	--	--	--	--	--	**1.9E+01**	**1.1E+01**	**na**	**--**
Chlorobenzene	0	--	--	na	1.6E+03	--	--	na	1.6E+03	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.6E+03**

Parameter	Background	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				**Most Limiting Allocations**			
(ug/l unless noted)	Conc.	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	**Acute**	**Chronic**	**HH (PWS)**	**HH**
Chlorodibromomethane[C]	0	--	--	na	1.3E+02	--	--	na	1.3E+02	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.3E+02**
Chloroform	0	--	--	na	1.1E+04	--	--	na	1.1E+04	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.1E+04**
2-Chloronaphthalene	0	--	--	na	1.6E+03	--	--	na	1.6E+03	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.6E+03**
2-Chlorophenol	0	--	--	na	1.5E+02	--	--	na	1.5E+02	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.5E+02**
Chlorpyrifos	0	8.3E-02	4.1E-02	na	--	8.3E-02	4.1E-02	na	--	--	--	--	--	--	--	--	--	**8.3E-02**	**4.1E-02**	**na**	**--**
Chromium III	0	1.8E+02	2.4E+01	na	--	1.8E+02	2.4E+01	na	--	--	--	--	--	--	--	--	--	**1.8E+02**	**2.4E+01**	**na**	**--**
Chromium VI	0	1.6E+01	1.1E+01	na	--	1.6E+01	1.1E+01	na	--	--	--	--	--	--	--	--	--	**1.6E+01**	**1.1E+01**	**na**	**--**
Chromium, Total	0	--	--	1.0E+02	--	--	--	na	--	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**--**
Chrysene [C]	0	--	--	na	1.8E-02	--	--	na	1.8E-02	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.8E-02**
Copper	0	3.6E+00	2.7E+00	na	--	3.6E+00	2.7E+00	na	--	--	--	--	--	--	--	--	--	**3.6E+00**	**2.7E+00**	**na**	**--**
Cyanide, Free	0	2.2E+01	5.2E+00	na	1.6E+04	2.2E+01	5.2E+00	na	1.6E+04	--	--	--	--	--	--	--	--	**2.2E+01**	**5.2E+00**	**na**	**1.6E+04**
DDD [C]	0	--	--	na	3.1E-03	--	--	na	3.1E-03	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**3.1E-03**
DDE [C]	0	--	--	na	2.2E-03	--	--	na	2.2E-03	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**2.2E-03**
DDT [C]	0	1.1E+00	1.0E-03	na	2.2E-03	1.1E+00	1.0E-03	na	2.2E-03	--	--	--	--	--	--	--	--	**1.1E+00**	**1.0E-03**	**na**	**2.2E-03**
Demeton	0	--	1.0E-01	na	--	--	1.0E-01	na	--	--	--	--	--	--	--	--	--	**--**	**1.0E-01**	**na**	**--**
Diazinon	0	1.7E-01	1.7E-01	na	--	1.7E-01	1.7E-01	na	--	--	--	--	--	--	--	--	--	**1.7E-01**	**1.7E-01**	**na**	**--**
Dibenz(a,h)anthracene [C]	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.8E-01**
1,2-Dichlorobenzene	0	--	--	na	1.3E+03	--	--	na	1.3E+03	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.3E+03**
1,3-Dichlorobenzene	0	--	--	na	9.6E+02	--	--	na	9.6E+02	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**9.6E+02**
1,4-Dichlorobenzene	0	--	--	na	1.9E+02	--	--	na	1.9E+02	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.9E+02**
3,3-Dichlorobenzidine[C]	0	--	--	na	2.8E-01	--	--	na	2.8E-01	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**2.8E-01**
Dichlorobromomethane [C]	0	--	--	na	1.7E+02	--	--	na	1.7E+02	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.7E+02**
1,2-Dichloroethane [C]	0	--	--	na	3.7E+02	--	--	na	3.7E+02	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**3.7E+02**
1,1-Dichloroethylene	0	--	--	na	7.1E+03	--	--	na	7.1E+03	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**7.1E+03**
1,2-trans-dichloroethylene	0	--	--	na	1.0E+04	--	--	na	1.0E+04	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.0E+04**
2,4-Dichlorophenol	0	--	--	na	2.9E+02	--	--	na	2.9E+02	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**2.9E+02**
2,4-Dichlorophenoxy acetic acid (2,4-D)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**--**
1,2-Dichloropropane[C]	0	--	--	na	1.5E+02	--	--	na	1.5E+02	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.5E+02**
1,3-Dichloropropene [C]	0	--	--	na	2.1E+02	--	--	na	2.1E+02	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**2.1E+02**
Dieldrin [C]	0	2.4E-01	5.6E-02	na	5.4E-04	2.4E-01	5.6E-02	na	5.4E-04	--	--	--	--	--	--	--	--	**2.4E-01**	**5.6E-02**	**na**	**5.4E-04**
Diethyl Phthalate	0	--	--	na	4.4E+04	--	--	na	4.4E+04	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**4.4E+04**
2,4-Dimethylphenol	0	--	--	na	8.5E+02	--	--	na	8.5E+02	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**8.5E+02**
Dimethyl Phthalate	0	--	--	na	1.1E+06	--	--	na	1.1E+06	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.1E+06**
Di-n-Butyl Phthalate	0	--	--	na	4.5E+03	--	--	na	4.5E+03	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**4.5E+03**
2,4 Dinitrophenol	0	--	--	na	5.3E+03	--	--	na	5.3E+03	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**5.3E+03**
2-Methyl-4,6-Dinitrophenol	0	--	--	na	2.8E+02	--	--	na	2.8E+02	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**2.8E+02**
2,4-Dinitrotoluene [C]	0	--	--	na	3.4E+01	--	--	na	3.4E+01	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**3.4E+01**
Dioxin 2,3,7,8-tetrachlorodibenzo-p-dioxin	0	--	--	na	5.1E-08	--	--	na	5.1E-08	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**5.1E-08**
1,2-Diphenylhydrazine[C]	0	--	--	na	2.0E+00	--	--	na	2.0E+00	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**2.0E+00**
Alpha-Endosulfan	0	2.2E-01	5.6E-02	na	8.9E+01	2.2E-01	5.6E-02	na	8.9E+01	--	--	--	--	--	--	--	--	**2.2E-01**	**5.6E-02**	**na**	**8.9E+01**
Beta-Endosulfan	0	2.2E-01	5.6E-02	na	8.9E+01	2.2E-01	5.6E-02	na	8.9E+01	--	--	--	--	--	--	--	--	**2.2E-01**	**5.6E-02**	**na**	**8.9E+01**
Alpha + Beta Endosulfan	0	2.2E-01	5.6E-02	--	--	2.2E-01	5.6E-02	--	--	--	--	--	--	--	--	--	--	**2.2E-01**	**5.6E-02**	**--**	**--**
Endosulfan Sulfate	0	--	--	na	8.9E+01	--	--	na	8.9E+01	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**8.9E+01**
Endrin	0	8.6E-02	3.6E-02	na	6.0E-02	8.6E-02	3.6E-02	na	6.0E-02	--	--	--	--	--	--	--	--	**8.6E-02**	**3.6E-02**	**na**	**6.0E-02**
Endrin Aldehyde	0	--	--	na	3.0E-01	--	--	na	3.0E-01	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**3.0E-01**

Parameter	Background	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				**Most Limiting Allocations**			
(ug/l unless noted)	Conc.	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	**Acute**	**Chronic**	**HH (PWS)**	**HH**
Ethylbenzene	0	--	--	na	2.1E+03	--	--	na	2.1E+03	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**2.1E+03**
Fluoranthene	0	--	--	na	1.4E+02	--	--	na	1.4E+02	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.4E+02**
Fluorene	0	--	--	na	5.3E+03	--	--	na	5.3E+03	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**5.3E+03**
Foaming Agents	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**--**
Guthion	0	--	1.0E-02	na	--	--	1.0E-02	na	--	--	--	--	--	--	--	--	--	**--**	**1.0E-02**	**na**	**--**
Heptachlor [C]	0	5.2E-01	3.8E-03	na	7.9E-04	5.2E-01	3.8E-03	na	7.9E-04	--	--	--	--	--	--	--	--	**5.2E-01**	**3.8E-03**	**na**	**7.9E-04**
Heptachlor Epoxide[C]	0	5.2E-01	3.8E-03	na	3.9E-04	5.2E-01	3.8E-03	na	3.9E-04	--	--	--	--	--	--	--	--	**5.2E-01**	**3.8E-03**	**na**	**3.9E-04**
Hexachlorobenzene[C]	0	--	--	na	2.9E-03	--	--	na	2.9E-03	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**2.9E-03**
Hexachlorobutadiene[C]	0	--	--	na	1.8E+02	--	--	na	1.8E+02	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.8E+02**
Hexachlorocyclohexane Alpha-BHC[C]	0	--	--	na	4.9E-02	--	--	na	4.9E-02	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**4.9E-02**
Hexachlorocyclohexane Beta-BHC[C]	0	--	--	na	1.7E-01	--	--	na	1.7E-01	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.7E-01**
Hexachlorocyclohexane Gamma-BHC[C] (Lindane)	0	9.5E-01	na	na	1.8E+00	9.5E-01	--	na	1.8E+00	--	--	--	--	--	--	--	--	**9.5E-01**	**--**	**na**	**1.8E+00**
Hexachlorocyclopentadiene	0	--	--	na	1.1E+03	--	--	na	1.1E+03	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.1E+03**
Hexachloroethane[C]	0	--	--	na	3.3E+01	--	--	na	3.3E+01	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**3.3E+01**
Hydrogen Sulfide	0	--	2.0E+00	na	--	--	2.0E+00	na	--	--	--	--	--	--	--	--	--	**--**	**2.0E+00**	**na**	**--**
Indeno (1,2,3-cd) pyrene [C]	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.8E-01**
Iron	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**--**
Isophorone[C]	0	--	--	na	9.6E+03	--	--	na	9.6E+03	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**9.6E+03**
Kepone	0	--	0.0E+00	na	--	--	0.0E+00	na	--	--	--	--	--	--	--	--	--	**--**	**0.0E+00**	**na**	**--**
Lead	0	2.0E+01	2.3E+00	na	--	2.0E+01	2.3E+00	na	--	--	--	--	--	--	--	--	--	**2.0E+01**	**2.3E+00**	**na**	**--**
Malathion	0	--	1.0E-01	na	--	--	1.0E-01	na	--	--	--	--	--	--	--	--	--	**--**	**1.0E-01**	**na**	**--**
Manganese	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**--**
Mercury	0	1.4E+00	7.7E-01	- -	- -	1.4E+00	7.7E-01	- -	- -	--	--	--	--	--	--	--	--	**1.4E+00**	**7.7E-01**	**- -**	**- -**
Methyl Bromide	0	--	--	na	1.5E+03	--	--	na	1.5E+03	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.5E+03**
Methylene Chloride [C]	0	--	--	na	5.9E+03	--	--	na	5.9E+03	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**5.9E+03**
Methoxychlor	0	--	3.0E-02	na	--	--	3.0E-02	na	--	--	--	--	--	--	--	--	--	**--**	**3.0E-02**	**na**	**--**
Mirex	0	--	0.0E+00	na	--	--	0.0E+00	na	--	--	--	--	--	--	--	--	--	**--**	**0.0E+00**	**na**	**--**
Nickel	0	5.6E+01	6.3E+00	na	4.6E+03	5.6E+01	6.3E+00	na	4.6E+03	--	--	--	--	--	--	--	--	**5.6E+01**	**6.3E+00**	**na**	**4.6E+03**
Nitrate (as N)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**--**
Nitrobenzene	0	--	--	na	6.9E+02	--	--	na	6.9E+02	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**6.9E+02**
N-Nitrosodimethylamine[C]	0	--	--	na	3.0E+01	--	--	na	3.0E+01	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**3.0E+01**
N-Nitrosodiphenylamine[C]	0	--	--	na	6.0E+01	--	--	na	6.0E+01	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**6.0E+01**
N-Nitrosodi-n-propylamine[C]	0	--	--	na	5.1E+00	--	--	na	5.1E+00	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**5.1E+00**
Nonylphenol	0	2.8E+01	6.6E+00	--	--	2.8E+01	6.6E+00	na	--	--	--	--	--	--	--	--	--	**2.8E+01**	**6.6E+00**	**na**	**--**
Parathion	0	6.5E-02	1.3E-02	na	--	6.5E-02	1.3E-02	na	--	--	--	--	--	--	--	--	--	**6.5E-02**	**1.3E-02**	**na**	**--**
PCB Total[C]	0	--	1.4E-02	na	6.4E-04	--	1.4E-02	na	6.4E-04	--	--	--	--	--	--	--	--	**--**	**1.4E-02**	**na**	**6.4E-04**
Pentachlorophenol [C]	0	8.6E+00	6.6E+00	na	3.0E+01	8.6E+00	6.6E+00	na	3.0E+01	--	--	--	--	--	--	--	--	**8.6E+00**	**6.6E+00**	**na**	**3.0E+01**
Phenol	0	--	--	na	8.6E+05	--	--	na	8.6E+05	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**8.6E+05**
Pyrene	0	--	--	na	4.0E+03	--	--	na	4.0E+03	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**4.0E+03**
Radionuclides	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**--**
Gross Alpha Activity (pCi/L)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**--**
Beta and Photon Activity (mrem/yr)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**--**
Radium 226 + 228 (pCi/L)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**--**
Uranium (ug/l)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**--**

Parameter	Background	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				**Most Limiting Allocations**			
(ug/l unless noted)	Conc.	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	**Acute**	**Chronic**	**HH (PWS)**	**HH**
Selenium, Total Recoverable	0	2.0E+01	5.0E+00	na	4.2E+03	2.0E+01	5.0E+00	na	4.2E+03	--	--	--	--	--	--	--	--	**2.0E+01**	**5.0E+00**	**na**	**4.2E+03**
Silver	0	3.2E-01	--	na	--	3.2E-01	--	na	--	--	--	--	--	--	--	--	--	**3.2E-01**	**--**	**na**	**--**
Sulfate	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**--**
1,1,2,2-Tetrachloroethane[C]	0	--	--	na	4.0E+01	--	--	na	4.0E+01	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**4.0E+01**
Tetrachloroethylene[C]	0	--	--	na	3.3E+01	--	--	na	3.3E+01	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**3.3E+01**
Thallium	0	--	--	na	4.7E-01	--	--	na	4.7E-01	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**4.7E-01**
Toluene	0	--	--	na	6.0E+03	--	--	na	6.0E+03	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**6.0E+03**
Total dissolved solids	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**--**
Toxaphene [C]	0	7.3E-01	2.0E-04	na	2.8E-03	7.3E-01	2.0E-04	na	2.8E-03	--	--	--	--	--	--	--	--	**7.3E-01**	**2.0E-04**	**na**	**2.8E-03**
Tributyltin	0	4.6E-01	7.2E-02	na	--	4.6E-01	7.2E-02	na	--	--	--	--	--	--	--	--	--	**4.6E-01**	**7.2E-02**	**na**	**--**
1,2,4-Trichlorobenzene	0	--	--	na	7.0E+01	--	--	na	7.0E+01	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**7.0E+01**
1,1,2-Trichloroethane[C]	0	--	--	na	1.6E+02	--	--	na	1.6E+02	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.6E+02**
Trichloroethylene [C]	0	--	--	na	3.0E+02	--	--	na	3.0E+02	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**3.0E+02**
2,4,6-Trichlorophenol [C]	0	--	--	na	2.4E+01	--	--	na	2.4E+01	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**2.4E+01**
2-(2,4,5-Trichlorophenoxy) propionic acid (Silvex)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**--**
Vinyl Chloride[C]	0	--	--	na	2.4E+01	--	--	na	2.4E+01	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**2.4E+01**
Zinc	0	3.6E+01	3.6E+01	na	2.6E+04	3.6E+01	3.6E+01	na	2.6E+04	--	--	--	--	--	--	--	--	**3.6E+01**	**3.6E+01**	**na**	**2.6E+04**

Notes:

1. All concentrations expressed as micrograms/liter (ug/l), unless noted otherwise
2. Discharge flow is highest monthly average or Form 2C maximum for Industries and design flow for Municipals
3. Metals measured as Dissolved, unless specified otherwise
4. "C" indicates a carcinogenic parameter
5. Regular WLAs are mass balances (minus background concentration) using the % of stream flow entered above under Mixing Information.
   Antidegradation WLAs are based upon a complete mix.
6. Antideg. Baseline = (0.25(WQC - background conc.) + background conc.) for acute and chronic
   = (0.1(WQC - background conc.) + background conc.) for human health
7. WLAs established at the following stream flows: 1Q10 for Acute, 30Q10 for Chronic Ammonia, 7Q10 for Other Chronic, 30Q5 for Non-carcinogens and Harmonic Mean for Carcinogens. To apply mixing ratios from a model set the stream flow equal to (mixing ratio - 1), effluent flow equal to 1 and 100% mix.

Metal	Target Value (SSTV)
Antimony	6.4E+02
Arsenic	9.0E+01
Barium	na
Cadmium	2.3E-01
Chromium III	1.4E+01
Chromium VI	6.4E+00
Copper	1.5E+00
Iron	na
Lead	1.4E+00
Manganese	na
Mercury	4.6E-01
Nickel	3.8E+00
Selenium	3.0E+00
Silver	1.3E-01
Zinc	1.4E+01

Note: do not use QL's lower than the minimum QL's provided in agency guidance

STATS.exe - Ammonia & TRC for 0.099 MGD Facility:

```
8/28/2014 4:07:09 PM

               Facility  = Town of Surry WWTP
               Chemical  = Ammonia (mg/L)
               Chronic averaging period =  30
               WLAa    =  8.57
               WLAc    =  1.18
               Q.L.      = 0.20
               # samples/mo. = 1
               # samples/wk. = 1

               Summary of Statistics:

               # observations = 1
               Expected Value =  9
               Variance       =  29.16
               C.V.           = 0.6
               97th percentile daily values  =  21.9007
               97th percentile 4 day average =  14.9741
               97th percentile 30 day average=  10.8544
               # < Q.L.       =  0
               Model used     = BPJ Assumptions, type 2 data


               A limit is needed based on Chronic Toxicity
               Maximum Daily Limit   = 2.38085071023125
               Average Weekly limit  = 2.38085071023125
               Average Monthly LImit = 2.38085071023125


               The data are:


                9
```

8/28/2014 4:31:42 PM

Facility = Town of Surry WWTP
Chemical = TRC (ug/L)
Chronic averaging period = 4
WLAa = 19
WLAc = 11
Q.L. = 100
# samples/mo. = 30
# samples/wk. = 7

Summary of Statistics:

observations = 1
Expected Value = 20000
Variance = 1440000
C.V. = 0.6
97th percentile daily values = 48668.3
97th percentile 4 day average = 33275.8
97th percentile 30 day average= 24121.0
< Q.L. = 0
Model used = BPJ Assumptions, type 2 data

A limit is needed based on Chronic Toxicity
Maximum Daily Limit = 16.0883226245855
Average Weekly limit = 9.8252545713861
Average Monthly LImit = 7.9737131838758

The data are:

20000

Loading Calculations for 0.099 MGD Facility ($cBOD_5$, TSS & TKN):

Monthly Average	**Weekly Average**
$cBOD_5$: (10 mg/L) X (3.785412 L/gal) X (1,000,000 gal/MG) X (g/1,000 mg) X (0.099 MG/day) = 3,748 g/day => **3,700 g/day**	**$cBOD_5$:** (15 mg/L) X (3.785412 L/gal) X (1,000,000 gal/MG) X (g/1,000 mg) X (0.099 MG/day) = 5,621 g/day => **5,600 g/day**
TSS: (10 mg/L) X (3.785412 L/gal) X (1,000,000 gal/MG) X (g/1,000 mg) X (0.099 MG/day) = 3,748 g/day => **3,700 g/day**	**TSS:** (15 mg/L) X (3.785412 L/gal) X (1,000,000 gal/MG) X (g/1,000 mg) X (0.099 MG/day) = 5,621 g/day => **5,600 g/day**
TKN: (3.0 mg/L) X (3.785412 L/gal) X (1,000,000 gal/MG) X (g/1,000 mg) X (0.099 MG/day) = 1,124 g/day => **1,100 g/day**	**TKN:** (4.5 mg/L) X (3.785412 L/gal) X (1,000,000 gal/MG) X (g/1,000 mg) X (0.099 MG/day) = 1,686 g/day => **1,700 g/day**

Attachment 4:
Preliminary Engineering Report (PER) Approval Letter

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
NORTHERN REGIONAL OFFICE
13901 Crown Court, Woodbridge, Virginia 22193
(703) 583-3800 Fax (703) 583-3821
www.deq.virginia.gov

Douglas W. Domenech
Secretary of Natural Resources

David K. Paylor
Director

Thomas A. Faha
Regional Director

January 24, 2014

Surry County
Town of Surry STW PER
VA 0061646

Ms. Jessica Kwiatkowski, P.E.,
Bowman Consulting Group
460 McLaws Circle, Suite 120
Williamsburg, VA 23185

Dear Ms. Kwiatkowski:

Thanks for your response letter. We generally concur with your responses. The PER is deemed approved. However, approval of the PER must not be construed as approval of final plans and specifications. Please submit one (1) copy of plans (half size preferred), specifications and calculations for further processing.

Sincerely,

J. S. Desai, P. E.
CWFAP/Wastewater Engineer
Northern Regional Office

cc: Town of Surry (Honorable Mayor Will Gwaltney, Jr.)
DEQ-PRO (Emilee Adamson, Adam Eller)
DEQ-CO (Mr. Walter Gills-CWFAP Manager)

Attachment 5:
Certificate to Operate (Ultraviolet Light Disinfection System)

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
PIEDMONT REGIONAL OFFICE
4949-A Cox Road, Glen Allen, Virginia 23060
(804) 527-5020 Fax (804) 527-5106
www.deq.virginia.gov

Molly Joseph Ward
Secretary of Natural Resources

David K. Paylor
Director

Michael P. Murphy
Regional Director

April 22, 2014

The Honorable Will Gwaltney, Jr.
P.O. Box 314
Surry, VA 23883

Subject: Certificate to Operate (CTO)
Town of Surry Wastewater Treatment Plant UV System Upgrade
PT Log # 26084

Dear Mayor Gwaltney:

In accordance with the Code of Virginia, Title 62.1, Section 62.1-44.19, attached please find the CTO for the subject project. The design engineer, Darrell Rickmond, P.E., certified in the Certificate to Operate (CTO) application received on March 20, 2014, that the project has been completed, substantially in accordance with the approved plans. The owner is authorized to operate these facilities in accordance with the Sewage Collection and Treatment Regulations.

Please be aware that the wastewater treatment plant's ultraviolet light disinfection system upgrade will affect the effluent limitations and monitoring requirements for Total Residual Chlorine (TRC) and *E coli*, as delineated in Part I.A and Part I.B of the facility's current VPDES permit (No. VA0061646). Please review the permit to ensure that the appropriate monitoring and reporting requirements are met.

If you would like further information regarding the project or if you have any questions regarding this matter, please contact Adam Eller at (804) 527-5046 or at adam.eller@deq.virginia.gov.

Sincerely,

Kyle Ivar Winter, P.E.
Deputy Regional Director

cc: Darrell Rickmond, P.E., Bowman Consulting: drickmond@bowmanconsulting.com
Patrick Bishop, DEQ: patrick.bishop@deq.virginia.gov

Bowman
CONSULTING

March 28, 2014

Mr. Curtis Linderman
Water Permit Manager
Virginia Department of Environmental Quality
4949-A Cox Road
Glen Allen, Virginia 23060

Re: Town of Surry Wastewater Treatment Plant UV System Upgrade
PTLog #25752
BCG Project # 8142-01-001

Dear Mr. Linderman:

For your review please find the attached one (1) copy of the Application for Certificate to Operate (CTO) for the referenced wastewater treatment plant upgrades.

If you should have any questions or comments, please feel free to contact me at (757) 229-1776.

Sincerely,
BOWMAN CONSULTING GROUP, LTD.

Darrell Rickmond
Vice President Business Development

cc: Mr. Will Gwaltney, Jr., Mayor of Town of Surry

P:\8142 - Town of Surrry\8142-01-001 (ENG) - WWTP_WTP Upgrades\Engineering\Correspondence\Sent\ltr for CTO application.dr.3.28.14.docx

Department of Environmental Quality
APPLICATION for CERTIFICATE TO OPERATE
Under the Sewage Collection and Treatment Regulations 9 VAC 25-790
and/or the Water Reclamation and Reuse Regulation 9 VAC 25-740

See instructions. Submit 1 copy of this form and any attachments. Form will expand as you enter information.

Project Title: (as it appears on plans) Town of Surry Wastewater Treatment Plant UV System Upgrade P.E. Seal Date on Cover: November 15, 2012 Specifications Title and Date: N/A	
Location of Project:1/2 Mile SW of Route 10/31 Intersection	County/City: Surry, Virginia
Receiving Wastewater Collection System(s): N/A	
Receiving Sewage Treatment Plant(s): N/A	
PROJECT OWNER: Town of Surry	**RESPONSIBLE ENGINEER**
Owner Contact Name: Mr. Will Gwaltney, Jr.	Name: Darrell Rickmond
Title: Mayor	Company Name: Bowman Consulting
Address: PO Box 314 Surry, VA 23883	Address: 460 McLaws Circle, Suite 120 Williamsburg, VA 23185
Phone: 757-294-3021	Phone: 757-229-1776
Email:	Email: drickmond@bowmanconsulting.com
Owner Signature and Date: X Will M. Gwaltney 3-27-14	

PTL NUMBER FROM CERTIFICATE TO CONSTRUCT: 25752

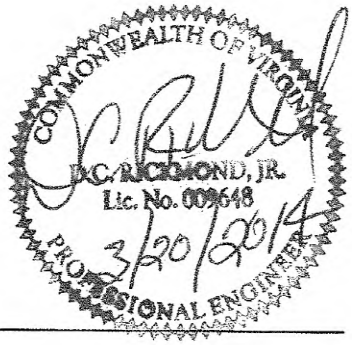
Attach Copy of the original Certificate to Construct if issued prior to November 9, 2008. If applicable, provide verification of compliance with any conditions in the Certificate to Construct.

Design Flow: (a) average daily flow (MGD): 0.060 (b) peak flow (MGD): _____
For sewage treatment plant, water reclamation or satellite reclamation projects, provide the VPDES/VPA Permit Number: VA0061646
Is a new Discharge Monitoring Report (DMR) or other monthly monitoring report required? Yes ☐ No ☒
For Pump Stations, Sewage Treatment Plants, and Reclamation Systems, check Reliability Class: I ☐ II ☒ III ☐ NA ☐

Two options are provided for the Statement of Completion, depending on whether the project is being authorized under the Sewage Collection and Treatment Regulations, the Water Reclamation and Reuse Regulations, or BOTH. Please check the appropriate box and then provide signature and seal below as indicated.

☒ *The following statement of completion for issuance of a Certificate to Operate under the Sewage Collection and Treatment Regulations must be signed and sealed by the responsible engineer.* (DEQ will not conduct a confirming inspection.)

"The construction of the project has been completed in accordance with the referenced plans and specifications or revised only in accordance with 9 VAC 25-790-180.B, and inspections have been performed to make this statement in accordance with Section 9 VAC 25-790-180.C.1 of the Sewage Collection and Treatment Regulations."



Licensed Engineer's Signature and original seal (signed and dated)

For DEQ use only:

In accordance with *Code of Virginia* 1950, as amended, Title 62.1, Section 62.1-44.19, this form, signed by the appropriate DEQ representative, serves as the **Certificate to Operate** for the referenced project.

Name	Signature	Date	CTO PTL Number
Kyle Ivanhoe		4/22/14	26084

Department of Environmental Quality Authorized Representative

An Operation and Maintenance Manual must be submitted to the DEQ Regional Office in accordance with 9 VAC 25-790 for sewage treatment plants, 9 VAC 25-740 for water reclamation systems and satellite reclamation systems and VPDES or VPA permit requirements.

For pump stations, an Operation and Maintenance Manual must be maintained for the facility in accordance with 9 VAC 25-790, but is NOT to be submitted to DEQ. The pump station must be operated and maintained in accordance with that manual.

Attachment 6:
Amendment to Order by Consent (Effective 10/3/2013)

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
PIEDMONT REGIONAL OFFICE
4949-A Cox Road, Glen Allen, Virginia 23060
(804) 527-5020 Fax (804) 527-5106
www.deq.virginia.gov

Douglas W. Domenech
Secretary of Natural Resources

David K. Paylor
Director

Michael P. Murphy
Regional Director

STATE WATER CONTROL BOARD ENFORCEMENT ACTION AMENDMENT TO ORDER BY CONSENT ISSUED TO TOWN OF SURRY FOR TOWN OF SURRY WASTEWATER TREATMENT PLANT VPDES Permit No. VA0061646

SECTION A: Purpose

This is an Amendment of an Order by Consent (Amendment) issued under the authority of Va. Code § 62.1-44.15, between the State Water Control Board (Board) and the Town of Surry, regarding the Town of Surry Wastewater Treatment Plant, for the purpose of revising certain provisions of the Order by Consent (Order) issued by the Board to the Town of Surry on June 25, 2010, and for resolving certain violations of the State Water Control Law, the Virginia Pollutant Discharge Elimination System Permit Regulation and the above-referenced Permit.

SECTION B: Basis for Amendment

1. The Town of Surry owns and operates the Town of Surry Wastewater Treatment Plant (the "Plant") in Surry, Virginia. The Permit allows Surry to discharge treated sewage and other municipal wastes from the Plant to an unnamed tributary of Dark Swamp, in strict compliance with the terms and conditions of the Permit.

2. The State Water Control Board entered into a Consent Order with the Town of Surry effective June 25, 2010, for violations of TKN, CBOD, copper, and chlorine effluent limitations as well as reporting violations.

3. The Order required the Town of Surry to raise sewer rates, identify and complete Inflow and Infiltration (I&I) work on the Plant's collection system, and to complete a corrective

action plan at the Plant to meet VPDES Permit effluent limits. The Town has increased the sewer rates, completed I&I work on the collection system, and is installing an ultraviolet disinfection system. The work on the collection system and UV disinfection expended all of the resources available to the Town of Surry for corrective action. The Town has hired an engineer to draft plans for an upgrade to the Plant, and until completion the Town will experience additional effluent violations.

4. The Town of Surry has requested an extension to the deadline of the Order for completing the planned treatment plant corrective action. The Town plans to install upgrades to the wastewater treatment plant to address all of the violations.

5. Based on the information available to DEQ to date, the Town of Surry is otherwise in compliance with the Order and is current with all monitoring and reporting requirements.

SECTION C: Agreement and Order

Accordingly, by virtue of the authority granted it in Va. Code § 62.1-44.15, the Board orders the Town of Surry, and the Town of Surry agrees to perform the actions described in Appendix C of this Amendment, which supersedes and cancels only paragraphs 2, 6, and 7 of Appendix A of the Order. Both the Board and the Town of Surry understand and agree that this Amendment does not alter, modify or amend any other provision of the Order and that the unmodified provisions of the Order remain in effect by their own terms.

And it is so ORDERED this 3RD day of OCTOBER, 2013.

Michael P. Murphy, Regional Director
Department of Environmental Quality

----------(Remainder of Page Intentionally Blank)----------

The Town of Surry voluntarily agrees to the issuance of this Order.

Date: 6-20-2013 By: William Gwaltney mayor
(Person) (Title)
Town of Surry

Commonwealth of Virginia
City/County of Surry

The foregoing document was signed and acknowledged before me this 20th day of June, 2013, by William B. Gwaltney, Jr. who is mayor of the Town of Surry, on behalf of the Town.

PAMELA B. OWNEY
Notary Public
Commonwealth of Virginia
No. 172412
My Commission Expires 7/31/14

Notary Public

172412
Registration No.

My commission expires: 7/31/14

Notary seal:

APPENDIX A
SCHEDULE OF COMPLIANCE

The Town of Surry shall:

1. On or before September 1, 2013, complete installation of the Department approved UV disinfection system and obtain a Certificate to Operate (CTO) on or before September 15, 2013.

2. On or before October 30, 2013, submit to the Department for review and approval preliminary engineering report outlining the options and cost for the Town to upgrade their wastewater treatment plant to achieve consistent compliance with all Permit effluent limits.

3. On or before March 1, 2014, submit an application to the Department for a certificate to construct (CTC) the upgrade.

4. On or before June 1, 2014, begin construction on the upgrade and obtain a CTO on or before December 15, 2014.

5. Meet all requirements of the Permit with respect to monitoring, recordkeeping and reporting requirements. The interim limits contained in Appendix B of the Consent Order issued July 25, 2010, remain in effect until the month following the issuance of the CTO or until January 15, 2015, whichever occurs first.

6. Submit to the Department a monthly update on the progress of the upgrade on the 15th of each month until the CTO is issued.

DEQ Contact

Unless otherwise specified in this Order, the Town of Surry shall submit all requirements of Appendix A of this Order to:

Frank Lupini
Enforcement Specialist
VA DEQ –Piedmont Regional Office
4949A Cox Road,
Glen Allen, Virginia 23060
Frank.Lupini@deq.virginia.gov

Attachment 7:
VDH Coordination (Office of Drinking Water, and Division of Shellfish Sanitation)

COMMONWEALTH of VIRGINIA

Marissa J. Levine, MD, MPH, FAAFP
State Health Commissioner

John J. Aulbach II, PE
Director, Office of Drinking Water

DEPARTMENT OF HEALTH
OFFICE OF DRINKING WATER
Southeast Virginia Field Office

830 Southampton Avenue
Suite 2058
Norfolk, VA 23510
Phone (757) 683-2000
Fax (757) 683-2007

MEMORANDUM

TO: Adam C. Eller **DATE:** JUN 27 2014
Environmental Specialist II
Department of Environmental Quality – Piedmont Regional Office

FROM: Daniel B. Horne, PE
Engineering Field Director DBH

CITY/COUNTY: Surry

PROJECT TYPE: ☐ New ☑ Renewal or Revision

☑ VPDES ☐ VPA ☐ VWPP ☐ JPA ☐ Other: _____

☑ Number: VA0061646

OWNER/APPLICANT: Town of Surry

PROJECT: Town of Surry WWTP

☑ There are no public water supply raw water intakes located within 15 miles downstream or within one tidal cycle upstream of the existing project.

☐ The raw water intake for the _____ waterworks is located _____ miles [downstream/upstream] of the discharge. This should be a sufficient distance to minimize the impacts of the discharge. We recommend a minimum Reliability Class of ____ for this facility.

☐ The raw water intake for the _____ waterworks is located _____ miles [downstream/upstream (within one tidal cycle)] of the discharge.

☐ Please forward a copy of the Draft Permit for our review and comment.

☐ Comments:

Prepared by: Kebede Feleke
Kebede M. Feleke
Assistant District Engineer

pc: V.D.H. - Office of Drinking Water, Field Services Engineer

R:\DIST19\Surry\GENERAL\Town of Surry WWTP VPDES June 2014.doc

COMMONWEALTH of VIRGINIA
Department of Health
DIVISION OF SHELLFISH SANITATION
109 Governor Street, Room 614-B
Richmond, VA 23219
Ph: 804-864-7487
Fax: 804-864-7481

MEMORANDUM

DATE: 9/2/2014

TO: Adam Eller
Department of Environmental Quality

FROM: B. Keith Skiles, MPH, Director
Division of Shellfish Sanitation

SUBJECT: Town of Surry WWTP

City / County: Surry

Waterbody: Dark Swamp / James River tributary

Type: ☑ VPDES ☐ VMRC ☐ VPA ☐ VWP ☐ JPA ☐ Other:

Application / Permit Number: VA0061646

☐ The project will not affect shellfish growing waters.

☐ The project is located in or adjacent to approved shellfish growing waters, however, the activity as described will not require a change in classification.

☑ The project is located in or adjacent to condemned shellfish growing waters and the activity, as described, will not cause an increase in the size or type of the existing closure.

☐ The project will affect condemned shellfish waters and will not cause an increase in the size of the total condemnation. However, a prohibited area (an area from which shellfish relay to approved waters for self-purification is not allowed) will be required within a portion of the currently condemned area. See comments.

☐ A buffer zone (including a prohibited area) has been previously established in the vicinity of this discharge, however, the closure will have to be revised. Map attached.

☐ This project will affect approved shellfish waters. If this discharge is approved, a buffer zone (including a prohibited area) will be established in the vicinity of the discharge. Map attached.

☐ Other.

ADDITIONAL COMMENTS:

Area #:

bks

Attachment 8:
Local Riparian Landowner Notifications

Local Riparian Landowners were notified in writing of the proposed permit action on May 29, 2014, in accordance with Section 62.1-44.15:4 D of the State Water Control Law. Names and addresses of the local landowners were provided by the Surry County Commissioner of the Revenue (see email below):

Good Morning,

We received your letter requesting information for names and addresses of parcels in proximity to the Town of Surry Wastewater Treatment Plant. Some of the parcels that will be included do not have physical on the map 911 street addresses because they are vacant land. We will provide to you what we can and also if you need to verify anything please use the website surry.mapsdirect.net. Attached you will also find a map with the parcels on it to match up with the maps you sent, if it If you have any further questions please let us know.

Jonathan F. Judkins
Deputy
Surry County Commissioner of the Revenue
P.O. Box 35
Surry, VA 23883
757-294-5227
757-294-5228 (fax)
jfjudkins@surrycountyva.gov

Parcel#27-50- no physical address on site
DONNAY, MARGUERITE M & WILLIAM J JR&
10901 SW 116 ST
MIAMI FL 33176

HANKINS, JOHN A & GAYLE D LVNG TRST
2404 FORT LANE ROAD
GENEVA FL 32732

Parcel#27-49- no physical address on site
PIERCE & HUNTER LLC
45 BAY FRONT PLACE
HAMPTON VA 23664

Parcel#27-51- no physical address on site
JOHN J. MARILLA
CAROL G. THOMPSON
1234 PLEASANT POINT ROAD
SURRY, VA 23883

Parcel #27-76- no physical address on site
DAVIN, BEVERLY BABB
12889 JERUSALEM PLANK ROAD
WAVERLY VA 23890

Parcel #27A-1-48- no physical address on site
DAVIN, BEVERLY BABB
12889 JERUSALEM PLANK ROAD
WAVERLY VA 23890

Parcel #27-76A- Physical Address is 11467 Rolfe Highway, Elberon, VA 23846
GILPATRIC REBECCA L K
11467 ROLFE HIGHWAY
ELBERON VA 23846

Parcel #27-33E- Physical Address is 11133 Rolfe Highway, Elberon, VA 23846
LAGOON PROPERTY LLC
P.O. BOX 25
SURRY, VA 23883

Surry County, Virginia

Legend

- Parcels
- Parcel Number Labels
- Road Names

Feet

0 200 400 800 1,200

1 inch = 1,667 Feet

Title:

Date: 5/27/2014

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
PIEDMONT REGIONAL OFFICE
4949-A Cox Road, Glen Allen, Virginia 23060
(804) 527-5020 Fax (804) 527-5106
www.deq.virginia.gov

Molly Joseph Ward
Secretary of Natural Resources

David K. Paylor
Director

Michael P. Murphy
Regional Director

May 29, 2014

Beverly Babb Davin
12889 Jerusalem Plank Road
Waverly, VA 23890

Dear Ms. Davin:

This is to inform you that the Department of Environmental Quality has received an application for a Virginia Pollutant Discharge Elimination System (VPDES) permit from the Town of Surry. The applicant proposes to discharge treated wastewater from a municipal wastewater treatment plant located at 11463 Rolfe Highway, Surry, VA. Section 62.1-44.15:4 of the Code of Virginia requires DEQ to notify localities and adjoining landowners when a permit application is received. Your name was provided to DEQ by the Commissioner of Revenue.

The Department will review the application and may draft a permit for this discharge. If the Department drafts a permit a notice will appear in the *Sussex-Surry Dispatch* announcing our intention to issue the permit and inviting public comment on its content. This public comment period will run for 30 days from the date the notice first appears in the newspaper. In the meantime, you are welcome to review the permit application at our office during normal business hours.

Please contact me at (804)527-5046 or Adam.Eller@deq.virginia.gov if you have any questions about this notification.

Sincerely,

Adam C. Eller
VPDES Permit Writer

Cc: File

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
PIEDMONT REGIONAL OFFICE
4949-A Cox Road, Glen Allen, Virginia 23060
(804) 527-5020 Fax (804) 527-5106
www.deq.virginia.gov

Molly Joseph Ward
Secretary of Natural Resources

David K. Paylor
Director

Michael P. Murphy
Regional Director

May 29, 2014

John A. Hankins & Gayle D. Hankins Living Trust
2404 Fort Lane Road
Geneva, FL 32732

Dear Property Owner:

This is to inform you that the Department of Environmental Quality has received an application for a Virginia Pollutant Discharge Elimination System (VPDES) permit from the Town of Surry. The applicant proposes to discharge treated wastewater from a municipal wastewater treatment plant located at 11463 Rolfe Highway, Surry, VA. Section 62.1-44.15:4 of the Code of Virginia requires DEQ to notify localities and adjoining landowners when a permit application is received. Your name was provided to DEQ by the Commissioner of Revenue.

The Department will review the application and may draft a permit for this discharge. If the Department drafts a permit a notice will appear in the *Sussex-Surry Dispatch* announcing our intention to issue the permit and inviting public comment on its content. This public comment period will run for 30 days from the date the notice first appears in the newspaper. In the meantime, you are welcome to review the permit application at our office during normal business hours.

Please contact me at (804)527-5046 or Adam.Eller@deq.virginia.gov if you have any questions about this notification.

Sincerely,

Adam C. Eller
VPDES Permit Writer

Cc: File

COMMONWEALTH of VIRGINIA

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PIEDMONT REGIONAL OFFICE
4949-A Cox Road, Glen Allen, Virginia 23060
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Molly Joseph Ward
Secretary of Natural Resources

David K. Paylor
Director

Michael P. Murphy
Regional Director

May 29, 2014

John J. Marilla and Carol G. Thompson
1234 Pleasant Point Road
Surry, VA 23883

Dear Mr. Marilla & Ms. Thompson:

This is to inform you that the Department of Environmental Quality has received an application for a Virginia Pollutant Discharge Elimination System (VPDES) permit from the Town of Surry. The applicant proposes to discharge treated wastewater from a municipal wastewater treatment plant located at 11463 Rolfe Highway, Surry, VA. Section 62.1-44.15:4 of the Code of Virginia requires DEQ to notify localities and adjoining landowners when a permit application is received. Your name was provided to DEQ by the Commissioner of Revenue.

The Department will review the application and may draft a permit for this discharge. If the Department drafts a permit a notice will appear in the *Sussex-Surry Dispatch* announcing our intention to issue the permit and inviting public comment on its content. This public comment period will run for 30 days from the date the notice first appears in the newspaper. In the meantime, you are welcome to review the permit application at our office during normal business hours.

Please contact me at (804)527-5046 or Adam.Eller@deq.virginia.gov if you have any questions about this notification.

Sincerely,

Adam C. Eller
VPDES Permit Writer

Cc: File

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
PIEDMONT REGIONAL OFFICE
4949-A Cox Road, Glen Allen, Virginia 23060
(804) 527-5020 Fax (804) 527-5106
www.deq.virginia.gov

Molly Joseph Ward
Secretary of Natural Resources

David K. Paylor
Director

Michael P. Murphy
Regional Director

May 29, 2014

Lagoon Property, LLC
P.O. Box 25
Surry, VA 23883

Dear Property Owner:

This is to inform you that the Department of Environmental Quality has received an application for a Virginia Pollutant Discharge Elimination System (VPDES) permit from the Town of Surry. The applicant proposes to discharge treated wastewater from a municipal wastewater treatment plant located at 11463 Rolfe Highway, Surry, VA. Section 62.1-44.15:4 of the Code of Virginia requires DEQ to notify localities and adjoining landowners when a permit application is received. Your name was provided to DEQ by the Commissioner of Revenue.

The Department will review the application and may draft a permit for this discharge. If the Department drafts a permit a notice will appear in the *Sussex-Surry Dispatch* announcing our intention to issue the permit and inviting public comment on its content. This public comment period will run for 30 days from the date the notice first appears in the newspaper. In the meantime, you are welcome to review the permit application at our office during normal business hours.

Please contact me at (804)527-5046 or Adam.Eller@deq.virginia.gov if you have any questions about this notification.

Sincerely,

Adam C. Eller
VPDES Permit Writer

Cc: File

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

PIEDMONT REGIONAL OFFICE
4949-A Cox Road, Glen Allen, Virginia 23060
(804) 527-5020 Fax (804) 527-5106
www.deq.virginia.gov

Molly Joseph Ward
Secretary of Natural Resources

David K. Paylor
Director

Michael P. Murphy
Regional Director

May 29, 2014

Marguerite M. Donnay and William J. Donnay, Jr.
10901 SW 116 St.
Miami, FL 33176

Dear Mr. & Mrs. Donnay:

This is to inform you that the Department of Environmental Quality has received an application for a Virginia Pollutant Discharge Elimination System (VPDES) permit from the Town of Surry. The applicant proposes to discharge treated wastewater from a municipal wastewater treatment plant located at 11463 Rolfe Highway, Surry, VA. Section 62.1-44.15:4 of the Code of Virginia requires DEQ to notify localities and adjoining landowners when a permit application is received. Your name was provided to DEQ by the Commissioner of Revenue.

The Department will review the application and may draft a permit for this discharge. If the Department drafts a permit a notice will appear in the *Sussex-Surry Dispatch* announcing our intention to issue the permit and inviting public comment on its content. This public comment period will run for 30 days from the date the notice first appears in the newspaper. In the meantime, you are welcome to review the permit application at our office during normal business hours.

Please contact me at (804)527-5046 or Adam.Eller@deq.virginia.gov if you have any questions about this notification.

Sincerely,

Adam C. Eller
VPDES Permit Writer

Cc: File

COMMONWEALTH of VIRGINIA

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PIEDMONT REGIONAL OFFICE
4949-A Cox Road, Glen Allen, Virginia 23060
(804) 527-5020 Fax (804) 527-5106
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Molly Joseph Ward
Secretary of Natural Resources

David K. Paylor
Director

Michael P. Murphy
Regional Director

May 29, 2014

Pierce & Hunter, LLC
45 Bay Front Place
Hampton, VA 23664

To the property owner of Parcel# 27-49 in Surry, VA:

This is to inform you that the Department of Environmental Quality has received an application for a Virginia Pollutant Discharge Elimination System (VPDES) permit from the Town of Surry. The applicant proposes to discharge treated wastewater from a municipal wastewater treatment plant located at 11463 Rolfe Highway, Surry, VA. Section 62.1-44.15:4 of the Code of Virginia requires DEQ to notify localities and adjoining landowners when a permit application is received. Your name was provided to DEQ by the Commissioner of Revenue.

The Department will review the application and may draft a permit for this discharge. If the Department drafts a permit a notice will appear in the *Sussex-Surry Dispatch* announcing our intention to issue the permit and inviting public comment on its content. This public comment period will run for 30 days from the date the notice first appears in the newspaper. In the meantime, you are welcome to review the permit application at our office during normal business hours.

Please contact me at (804)527-5046 or Adam.Eller@deq.virginia.gov if you have any questions about this notification.

Sincerely,

Adam C. Eller
VPDES Permit Writer

Cc: File

COMMONWEALTH of VIRGINIA

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PIEDMONT REGIONAL OFFICE
4949-A Cox Road, Glen Allen, Virginia 23060
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www.deq.virginia.gov

Molly Joseph Ward
Secretary of Natural Resources

David K. Paylor
Director

Michael P. Murphy
Regional Director

May 29, 2014

Rebecca Gilpatric
11467 Rolfe Highway
Elberon, VA 23846

Dear Ms. Gilpatric:

This is to inform you that the Department of Environmental Quality has received an application for a Virginia Pollutant Discharge Elimination System (VPDES) permit from the Town of Surry. The applicant proposes to discharge treated wastewater from a municipal wastewater treatment plant located at 11463 Rolfe Highway, Surry, VA. Section 62.1-44.15:4 of the Code of Virginia requires DEQ to notify localities and adjoining landowners when a permit application is received. Your name was provided to DEQ by the Commissioner of Revenue.

The Department will review the application and may draft a permit for this discharge. If the Department drafts a permit a notice will appear in the *Sussex-Surry Dispatch* announcing our intention to issue the permit and inviting public comment on its content. This public comment period will run for 30 days from the date the notice first appears in the newspaper. In the meantime, you are welcome to review the permit application at our office during normal business hours.

Please contact me at (804)527-5046 or Adam.Eller@deq.virginia.gov if you have any questions about this notification.

Sincerely,

Adam C. Eller
VPDES Permit Writer

Cc: File

Attachment 9:
Local Government Notification

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

PIEDMONT REGIONAL OFFICE
4949-A Cox Road, Glen Allen, Virginia 23060
(804) 527-5020 Fax (804) 527-5106
www.deq.virginia.gov

Molly Joseph Ward
Secretary of Natural Resources

David K. Paylor
Director

Michael P. Murphy
Regional Director

May 20, 2014

Tyrone W. Franklin
County Administrator
P.O. Box 65
Surry, VA 23883

Subject: VPDES #VA0061646 Town of Surry WWTP; Permit Major Modification: Expansion/Upgrade

Dear Mr. Franklin:

This is to inform you that the Department of Environmental Quality has received an application for a Virginia Pollutant Discharge Elimination System (VPDES) permit from the Town of Surry Wastewater Treatment Plant (VPDES permit number VA0061646). The applicant proposes to discharge treated wastewater from a wastewater treatment facility located at 11463 Rolfe Highway, Surry, VA. The facility has proposed a design upgrade to the treatment works and an expansion in discharge from 0.06 to 0.099 million gallons per day (MGD) to an unnamed tributary of Dark Swamp. Section 62.1-44.15:4 of the Code of Virginia requires DEQ to notify localities and adjoining landowners when a permit application is received. Your name was provided to DEQ by the Commissioner of Revenue.

The Department will review the application and may draft a permit for this discharge. If the Department drafts a permit a notice will appear in the *Sussex-Surry Dispatch* announcing our intention to issue the permit and inviting public comment on its content. This public comment period will run for 30 days from the date the notice first appears in the newspaper. In the meantime, you are welcome to review the permit application at our office during normal business hours.

Please contact me at (804)527-5046 or Adam.Eller@deq.virginia.gov if you have any questions about this notification.

Sincerely,

Adam C. Eller
VPDES Permit Writer

cc: file

Attachment 10:
Local Government Ordinance Form

Local Government Ordinance Form

Subject: Local and Areawide Planning Requirements

To: Applicants for a Virginia Pollutant Discharge Elimination System Permit

§62.1-44.15:3 A of the State Water Control Law states:

"No application for a new individual VPDES permit authorizing a new discharge of sewage, industrial wastes, or other wastes shall be considered complete unless it contains notification from the county, city, or town in which the discharge is to take place that the location and operation of the discharging facility are consistent with applicable ordinances adopted pursuant to Chapter 22 (§ 15.2-2200 et seq.) of Title 15.2, Code of Virginia. The county, city or town shall inform in writing the applicant and the Board of the discharging facility's compliance or noncompliance not more than thirty days from receipt by the chief administrative officer, or his agent, of a request from the applicant. Should the county, city or town fail to provide such written notification within thirty days, the requirement for such notification is waived. The provisions of this subsection shall not apply to any discharge for which a valid VPDES permit had been issued prior to March 10, 2000"

In accordance with this section, applications for a new VPDES permit will not be considered complete until the certification statement is submitted to the Department of Environmental Quality Regional Office. Applicants may use the bottom of this page to transmit the request to the locality. If the locality does not respond to your request within 30 days, submit a copy of this form, showing the date you made the request, with your permit application.

****

To: Town of Surry Date: 3/23/15
(County, City, or Town Administrator/Manager)

I am in the process of completing an application for a new VPDES permit. In accordance with Chapter 22 (§15.2-2200 et seq.) of Title 15.2 of the Code, I request that you sign one of the three statements certifying that the operation described on the attached permit application is or is not consistent with your local ordinances. Please return this form to me at:

(Applicant's address): 11463 Rolfe Highway
Surry VA 23883

PLEASE SEE THE NEXT PAGE OF FORM FOR CERTIFICATION REQUIREMENTS

Local Government Ordinance Form

For new VPDES permit applications

In reference to the request from: Town of Surry
Applicant's Name

For certification of a discharge at: Town of Surry Wastewater Treatment Plant
Name and Location of Facility

I hereby certify,

____(1) That the proposed location, and operation of the facility is consistent with all ordinances adopted pursuant to Chapter 22 (§15.2-2200 et seq.) of Title 15.2 of the Code of Virginia.

OR

X (2) That no local ordinances are in effect pursuant to Chapter 22 (§15.2-2200 et seq.) of Title 15.2 of the Code of Virginia.

OR

____(3)That the proposed location and operation of the facility in **not** consistent with all ordinances adopted pursuant to Chapter 22 (§15.2-2200 et seq.) of Title 15.2 of the Code of Virginia.

Will M. Gwaltney, Jr. — Signature

MAYOR — Title

Will M. Gwaltney, Jr. — Printed Name

3-23-15 — Date

Attachment 11:
Crater District Planning Commission Response

Archived: Tuesday, May 12, 2015 3:49:41 PM
From: Mark Bittner
Sent: Thursday, March 26, 2015 11:07:37 AM
To: Eller, Adam (DEQ)
Cc: dmorris@craterpdc.org
Subject: VA0061646 Town of Surry WWTF
Response requested: Yes
Importance: Normal

Dear Mr. Eller:

Thank you for submitting the VPDES Permit VA0061646 - Town of Surry WWTF for review.

Based upon the Crater Commission's staff review, we find the proposal to be in full accord with the Crater Planning District Commission's environmental policy directives and we support the request.

Please contact me if you have any questions.

Sincerely,

Mark Bittner

Mark Bittner
Crater Planning District Commission
Director of Planning & Information Technology

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Attachment 12:
Response to Comments Memorandum

MEMORANDUM

DEPARTMENT OF ENVIRONMENTAL QUALITY
Piedmont Regional Office

4949-A Cox Road, Glen Allen, VA 23060-6296 **804/527-5020**

SUBJECT: **Response to Comments – VPDES No. VA0061646, Town of Surry Wastewater Treatment Plant; Major Modification of Permit**

FROM: **Adam Eller, VPDES Permit Writer, DEQ-PRO**

TO: **Emilee Adamson, Planning and VPDES Permit Manager, DEQ-PRO**

DATE: **May 14, 2015**

The subject permit's public notice was published by the *Sussex-Surry Dispatch* on April 1, 2015 and April 8, 2015. The public comment period ran from April 1, 2015 – May 1, 2015.

During the public comment period, one individual submitted written comments (via email on April 15, 2015) on the permit modification. The individual's comments and DEQ staff's response to those comments are listed below:

1. **Comment:** *"I just wanted to write in opposition to the proposed dumping of "treated sewage wastewater" into the James River watershed."*

   DEQ Staff Response: The Town of Surry Wastewater Treatment Plant has an existing Virginia Pollutant Discharge Elimination System (VPDES) permit (No. VA0061646), which was last reissued on October 13, 2011 and expires on October 12, 2016. The existing permit allows for a maximum of 60,000 gallons per day of treated municipal wastewaters to be discharged to an unnamed tributary of Dark Swamp, located in Surry, VA. While the proposed permit modification would allow for an expanded discharge (i.e. the design capacity will increase from 60,000 gallons per day to 99,000 gallons per day), treated wastewater is already discharged by this facility to the receiving stream. Only the proposed modifications to the permit are subject to comment during the public comment period.

2. **Comment:** *"In my opinion, the dumping of such wastewater is environmentally irresponsible, and would have a negative impact on the oyster and blue crab populations in the James River. As you may well know, the oyster and blue crab populations are now just beginning to rebound after near total collapse."*

   DEQ Staff Response: The effluent limitations contained in the modified permit will maintain Virginia's Water Quality Standards of 9VAC25-260 et seq., which are developed to be protective of human health and aquatic life. Due to the intermittent nature of the receiving stream, the VPDES permit includes stringent limitations requiring that the discharge comply with Virginia's Water Quality Standards at the end-of-pipe, prior to reaching state waters. The proposed permit modification incorporates an additional flow tier for up to 99,000 gallons per day and the installation of upgraded nutrient removal technologies in order to accommodate increased influent from the Town, offset additional nutrient loads to the affected watershed, and to ensure proper treatment of these wastewaters to be protective of human health and the environment. The Virginia Department of Health Division of Shellfish Sanitation (VDH-DSS) was notified of the proposed permit modification; VDH-DSS has stated that: "The project is located in or adjacent to condemned shellfish growing waters and the activity, as described, will not cause an increase in the size or type of the existing closure."

3. **Comment:** *"This treated sewage wastewater is treated with chorine, a chemical known to cause cancer. Chlorine is absorbed by microscopic algae, which oysters, clams, mussels and other bivalves eat."*

DEQ Staff Response: The facility has installed ultraviolet light (UV) disinfection to replace chlorine as its primary disinfection method. The remaining total residual chlorine effluent limitations included in the permit are water-quality based, specific to the receiving stream conditions, and believed to be protective of aquatic life and human health based on the available scientific data incorporated into triennial reviews of Virginia's Water Quality Standards. Chlorine will only be used as a backup disinfection method when necessary. All effluent chlorine limitations in the draft permit are at least as stringent as those in the existing permit.

4. **Comment:** *"We cannot continue to abuse these resources and expect them to be available to our children and our children's children."*

   DEQ Staff Response: The Department of Environmental Quality (DEQ) understands your concerns about preserving water quality and conserving our natural resources for future generations to enjoy; to that end, DEQ evaluates each permit action on a case-by case basis and conducts rigorous internal reviews of its draft permits to ensure the permits are protective of water quality. Additionally, DEQ coordinates with local governments, and state and federal agencies to ensure that appropriate ordinances, regulations and statutes are fully complied with prior to issuing a VPDES permit. The general public, local governments, state and federal agencies have been afforded the opportunity to comment on or object to the proposed permit modification, however, no opposition to the permit modification has been received.

5. **Comment:** *"I would encourage DEQ to deny this permit to pollute."*

   DEQ Staff Response: The DEQ may decide to hold a public hearing, including another comment period, if public response is significant and there are substantial, disputed issues relevant to the permit. If there is public interest, but fewer than 25 individuals have requested a public hearing, DEQ may choose to hold an informal public meeting to provide additional information to the public. If specific changes to the permit are requested, DEQ will evaluate the concerns raised and may choose to modify the permit to address those concerns. Please be aware that no requests for a public meeting or a public hearing were received during the public comment period. No changes to the provisions of the draft modified permit were suggested during the public comment period or made as a result of the comments received during the public comment period. Your comments and the responses to those comments, however, will be maintained for public record.

Staff Comments:

- No requests for a public hearing were received during the public comment period. Only one individual submitted comments (listed above) during the public comment period. No specific changes to the draft permit were requested by the commenter.

- VDH Office of Drinking Water - Letter dated June 27, 2014 stated that: "There are no public water supply raw water intakes located within 15 miles downstream or within one tidal cycle upstream of the existing project." The VDH Office of Drinking Water raised no objection to the permit modification.

- VDH Division of Shellfish Sanitation - Letter dated September 2, 2014 stated that: "The project is located in or adjacent to condemned shellfish growing waters and the activity, as described, will not cause an increase in the size or type of the existing closure." The VDH Division of Shellfish Sanitation raised no objection to the permit modification.

- The Virginia Marine Resources Commission (VMRC) did not comment on or object to the proposed modification to the permit.

- Other State and Federal agencies (including EPA, DGIF, VIMS, F&WS, NMFS, Corps of Engineers, and adjacent states) were notified of the public notice via DEQ's Mailing List; however, no comments or objections to the permit modification were received.

- In an email received on March 26, 2015, the Crater Planning District Commission stated that: "Based upon the Crater Commission's staff review, we find the proposal to be in full accord with the Crater Planning District Commission's environmental policy directives and we support the request."

- The project was confirmed to be in accordance with local ordinances via a Local Government Ordinance Form from the Town of Surry dated March 23, 2015.

- Local government and riparian landowners were notified of the proposed permit modification (on May 20, 2014 and May 29, 2014 respectively), in accordance with Section 62.1-44.15:4 of the Code of Virginia. No comments or objections to the proposed permit modification were received from any local landowners.

- This discharge is in conformance with the existing planning documents for the area (PRO, February 27, 2015).

Staff Recommendations:
Staff believes that the provisions of the draft permit will maintain Virginia's Water Quality Standards at 9VAC25-260 et seq. and are in full accordance with the Clean Water Act and all applicable VPDES permitting regulations at VAC25-31 et seq.; therefore, staff recommends issuing the modified permit.

☑Approved ☐ Denied

Comments:

Emily C. Adamson

May 31, 2015

Signature Date